

Monthly



MBER
1956

**For faster, thriftier,
modern automatic laundering — look
what Bendix GAS Duomatic[†]
offers you today!**

"What's new" in home laundries is here today in one fabulous machine —the new Bendix Gas Duomatic. It washes and rinses and *dries* your clothes, without watching. And with instant on-off Gas heat, there's no warm-up wait. Washing and drying temperatures are constant, perfectly controlled for spotless, fluffy clothes. Never "wears out" clothes, either. Manufacturers actually state, on miracle fabric

garment tags: "For best results, wash and dry in a Bendix Duomatic"! When you plan your New Freedom Gas Laundry*, remember this, too—the Bendix Gas Washer-Dryer requires only 36 inches of floor space. And, like all Gas laundry appliances, it operates dependably—any day, any time, year after year—at lower cost than any other automatic laundry method!

AMERICAN GAS ASSOCIATION



Cabinets by American Kitchens (Div. of Avco Mfg. Corp.)

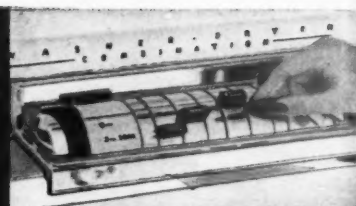
ONLY GAS

gives such matchless performance



*Reg. A. G. A.

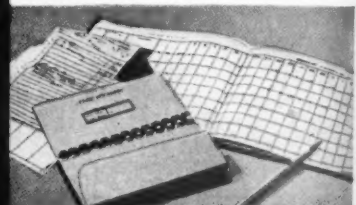
The modern, economical fuel for automatic cooking . . . refrigeration . . . water-heating . . . clothes-drying . . . house-heating . . . air-conditioning . . . incineration.



ONE MACHINE WASHES AND DRIES! One setting of the dials and the Bendix Gas Washer-Dryer puts your laundry through a complete wash-rinse-dry cycle. And it can be used as a washer only, or a dryer only, if you wish!



PROTECTS YOUR CLOTHES! No other washer or dryer is safer for clothes than the Bendix Gas Duomatic. Washing action tumble-cleans gently, 500 times every 10 minutes. Drying temperature is safe for all fabrics.



SAVES YOU MONEY! Low-cost Gas fuels the Bendix Duomatic . . . does all your home laundry more economically than any other laundry method. It actually can save you up to \$32.30 each year in operating costs!



See all the modern features of the new BENDIX Gas Duomatic! —on display now at your Gas company or Gas appliance dealer's. †Washer-Dryer Combination—Product of the Crosley & Bendix Home Appliances Divisions, Avco Manufacturing Corporation.



Surrounded by product, Miss Julia Meade represents a new sponsor

THE gas industry will make its bow on national television next month as a sponsor of Columbia Broadcasting System's major vehicle for stars—Playhouse 90. For description of the program, our own "TV personality"—Julia Meade—and some of the details how the program was chosen, turn to page 7. . . . If the gas industry is to make the most of the sales potentials as seen by our Bureau of Statistics, national television will be only one of its sales and promotional tools. The magnitude of these potentials for the years 1960-1975 is discussed beginning on page 2. . . . Want more attendance at your company's annual meeting? Illinois Gas Company drew attendance by putting on a show and serving a buffet lunch. Read about it on page 10. . . . Another company, faced with a greatly expanded gas supply, decided to enlist the interest of top appliance manufacturers. Milwaukee Gas Light told its story in a rousing all-day meeting. An account is on page 12. . . . Still on sales, we have another contributor whose company has come up with a "sure-fire" gimmick. John F. Tullie tells, on page 31, how the "gas merchandise certificate" works. . . . For the technically minded, A. G. A. Laboratories has just published the results of two important projects. They are reported on pages 9 and 21.

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THIS MONTHLY IS INDEXED BY THE INDUSTRIAL ARTS INDEX

VOL. 38

NO. 12

• Subscription \$3.00 a year - Published eleven times a year by the American Gas Association, Inc. Publication Office, 73 Main Street, Brattleboro, Vt. Publication is monthly except July and August which is a bi-monthly issue. Address communications to 420 Lexington Ave., New York 17, N. Y., including all manuscript copy for publication. The Association does not hold itself responsible for statements and opinions contained in papers and discussions appearing herein. Entered as Second Class Matter at the Post Office at Brattleboro, Vermont, Feb. 10th, 1922, under the Act of March 3, 1879. Cable addresses: American Gas Association, "Amerigas, New York"; American Gas Association Testing Laboratories, "Amerigaslab, Cleveland."

LONG TERM POTENTIAL SALES OF GAS APPLIANCES (THOUSANDS OF UNITS)

	1955- 1959	1960- 1964	1965- 1969	1970- 1974	1960-1974 Total
RANGES	17,550	18,365	26,640	31,630	76,635
WATER HEATERS	16,400	16,865	23,255	23,920	64,040
CENTRAL HEATING UNITS	4,930	4,850	7,135	7,965	19,950
FLOOR & WALL FURNACES	3,115	4,835	5,890	6,745	17,470
SPACE HEATERS	12,470	12,710	14,090	15,355	42,155
INCINERATORS	700	1,160	1,585	2,245	4,990
DRIERS	2,275	3,190	5,200	6,430	14,820

Foresee gas appliance sales at new levels during 1960-1975

● For the past several years the Bureau of Statistics has developed estimates of potential appliance sales for five future years, the most recent such study covering the period 1955-1959. To provide indications of the achievable market during the succeeding 15 years, a long term outlook and a goal toward which efforts can be directed, the following memorandum has been prepared.

The decade and a half from 1960 to 1974 can be a period of "expansion unlimited" for sales of gas appliances, as it will be for the country as a whole. Although tremendous possibilities exist, it must be emphasized that increased efforts, both quantitatively and qualitatively, will be necessary to attain the goals specified as follows.

They are attainable, but competitive fuel industries will

also be working to capture their maximum portion of the market. The gas industry must accelerate its sales and promotional activities or it can not gain ground on the oil and electric industries.

A reasonable forecast of new residential construction predicts that new houses will be put up at the rate of 1.2 million a year between 1960 and 1965, 1.3 million a year from 1965 to 1970, and about 1.4 million a year for the first five years of the 'Seventies, as housing activity keeps pace with the growing (and growing up) population. Continued emphasis on the political advantages of housing betterment would increase these forecasts significantly.

At this rate of building, many areas which are now suburban will achieve so high a density of population that they can be considered fully urbanized. Then these areas may become

the new central cities from which the next "flight to the suburbs" starts. On the other hand, it is also possible that urban redevelopment and the rehabilitation of the older sections of our present central cities will succeed in bringing suburbanite and exurbanite people and businesses back to the cities they left.

In either case, the emphasis on the further development of what are now the suburbs and the possible future development of what can be called sub-suburbs, highlights the need for careful and foresighted re-examination of company policies of gas main extensions in current newly developed subdivisions, so that the gas company will be economically capable of growing with tomorrow's urban communities.

Another possible, even probable, result of growing urban population density combined with increasing leisure time and higher income, will be a larger number of families who own weekend and vacation cottages and bungalows. By 1975, the two-home family may be as common as the two-car family is today, thus creating additional markets for gas appliances (some using bottled gas) over and above those indicated by increases in number of families and improved living standards.

Many architects expect that the tendency to less formal homes which has been evident in recent years will be accelerated; in particular, it will emphasize the trend to basementless homes or playroom and recreation room uses of basements in

the large majority of gas cooking customers will replace with gas when they buy new ranges.

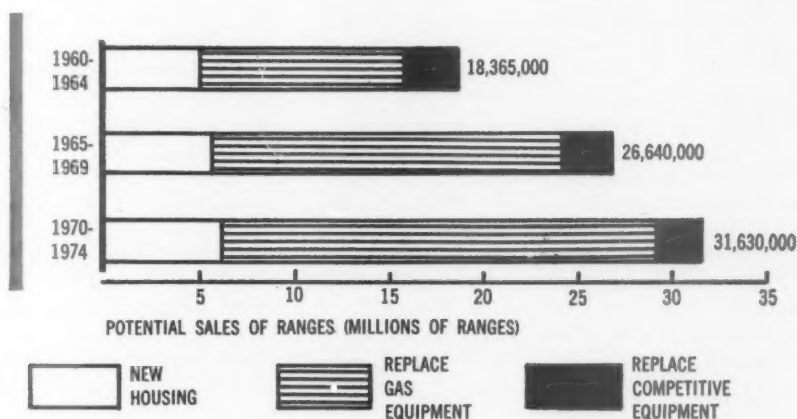
Ranges will be replaced earlier than they are now, as increased leisure time and informal family living make people more conscious of their good-looking, well-run and convenient homes. Families can be as proud of their modern and hospitable kitchens as they are now of their polished and powerful cars.

Perhaps promoting the idea of trade-ins for appliances can stimulate early replacements, as it has for automobiles. Certainly constant, alert product development is necessary so that ultimately each year's new model is a different, more attractive, appliance from the previous one, with new features or gadgets.

Perhaps, as in the automotive field, a market for second-hand appliances can be developed. Installations in "second homes," as "conveniences" in rumpus rooms, and the economic development of the export market might provide outlets for used appliances. The success of this approach, however, will rest largely in developing a network of agencies to recondition used appliances before resale.

Perhaps some additional set of uniform performance standards could be developed, to which all used appliances would have to adhere, and which could be enforced by local utilities and bottled gas companies to prevent the installation of defective old equipment. Otherwise, all of the hard-won con-

RANGES



homes that have them. What are now basement appliances, hidden out of sight downstairs, will be brought into prominence in living areas, in kitchens, in utility rooms, in family playrooms, where sleek, trim shape and appearance, and modern, harmonious color will be important selling points.

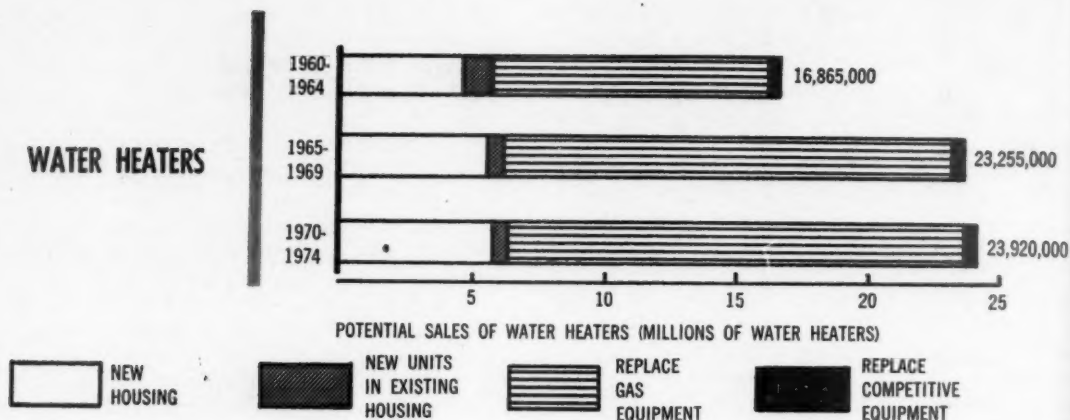
The gas appliance industry will have an achievable market for 77 million gas ranges during 15 years from 1960 to 1974. The major portion—well over two thirds—relate to purchases by present users to replace their old ranges. (Potential sales at this level assume that potentials for 1956-1959, as published in the A. G. A. study of Potential Sales of Gas Ranges, 1955-1959, will be achieved, since these ranges will become eligible for replacement before 1969.) The long-range potential assumes that vigorous promotion activity and product development will bring about the achievement of another goal—that

sumer enthusiasm for gas appliances will be lost in an atmosphere of unsatisfactory performance, inadequate safety standards, and unfavorable publicity.

Nearly a quarter of total potential range sales during 1960-1974 can be installed in new homes. It seems reasonable to expect acceptance of gas for cooking to increase moderately over the 15-year period, as industry efforts are upgraded, mainly following the popularity of gas househeating, and the success of promotion stressing all-gas homes. Househeating is expected to draw gas cooking into homes where customer payments for main extension would be prohibitive for cooking alone.

Many installations, especially those in new homes, may be built-in, rather than free-standing, units. This means that product development activity and promotion of new features

WATER HEATERS



must be especially vigorous to induce people to replace old built-in units. The natural reluctance which people feel to calling in carpenters and builders may provide some obstacles. In particular, sizes of built-in units must become standardized, to make replacement a short and simple job.

Potential replacement of competitive equipment is expected to remain almost constant. Even though the number of coal, wood, oil, and kerosene ranges still in use and, therefore, eligible for replacement is rapidly shrinking, an increasing proportion of this market is expected to choose gas. With increased promotion activity, gas may hope to recapture lost ground by replacing some electric ranges.

Gas water heater sales could total 64 million units between 1960 and 1974. Installations in new homes will account for almost a quarter of the number, as both the number of new homes to be built and the relative acceptance of gas for water heating in new houses will increase steadily. The potential for installations in existing housing without hot water will diminish in importance, as the pool of unconverted dwellings becomes smaller.

The greatest proportion of sales will be made to replace existing gas water heaters—over two-thirds of potential sales.

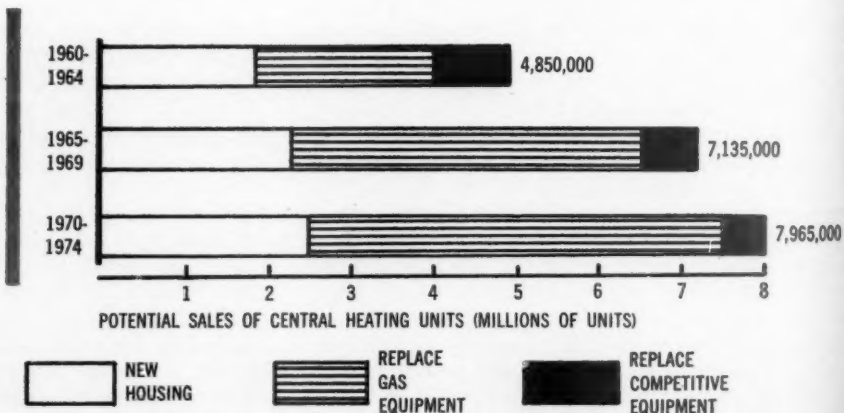
The large numbers of water heaters sold, and expected to be sold, in the decade of the 'Fifties will be due for replacement in the decade of the 'Sixties. Based on past experience, it is anticipated that all but a negligible percentage of owners of gas water heaters will replace with gas water heaters.

Style features, appearance, easy servicing and adequate venting for safety, must receive the major sales promotion emphasis for this appliance, in accordance with the trend toward the more prominent location of water heaters. Styling will be particularly important since the need for adequate supplies of hot water will no longer influence the accelerated replacement of water heaters. Adequate capacity heaters will have become the rule rather than the exception by this time.

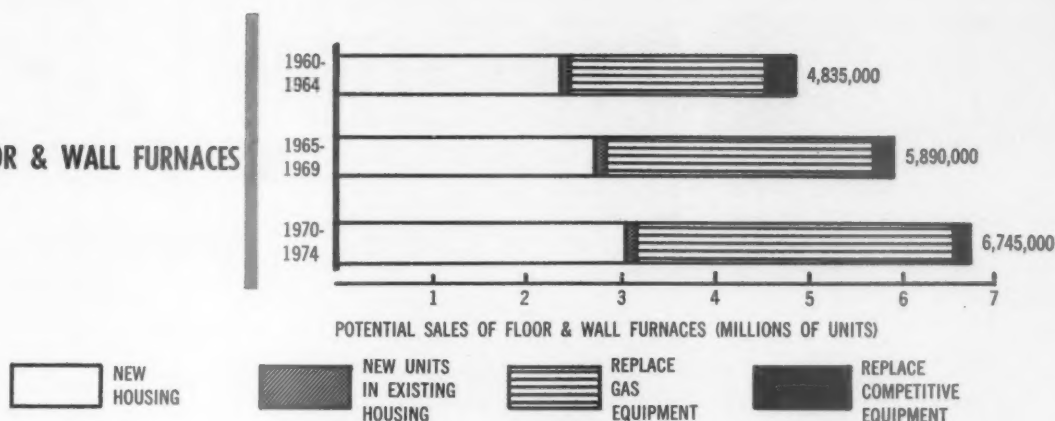
Furthermore, hard selling and new features will be needed to induce owners to replace their long-lived, and increasingly popular monel and glass-lined storage tanks.

Nearly 20 million new central heating units could be sold during the 15-year period, assuming that restrictions on new heating installations will previously be permanently eliminated. One-third of the potential market will lie in new homes, as the present enthusiastic acceptance of gas house-heating can be retained and extended despite the trend to

CENTRAL HEATING UNITS



FLOOR & WALL FURNACES



suburbanization.

The development and popularization of gas central air conditioning for all-year round climate control can help retain public preference for gas heating. In the same way, the popularity of gas househeating will be an important factor in encouraging acceptance of gas air conditioning. The combination package will be essential to compete with the growing threat of the year-round electric heat pump.

Replacements of older gas equipment, both central and space, will show even greater gains, as people start replacing the units they purchased during the first postwar surge of popular acceptance of gas heating. Since many of these original installations were conversion burners in old boilers and furnaces, their replacement period will be shorter than the life span of gas designed equipment.

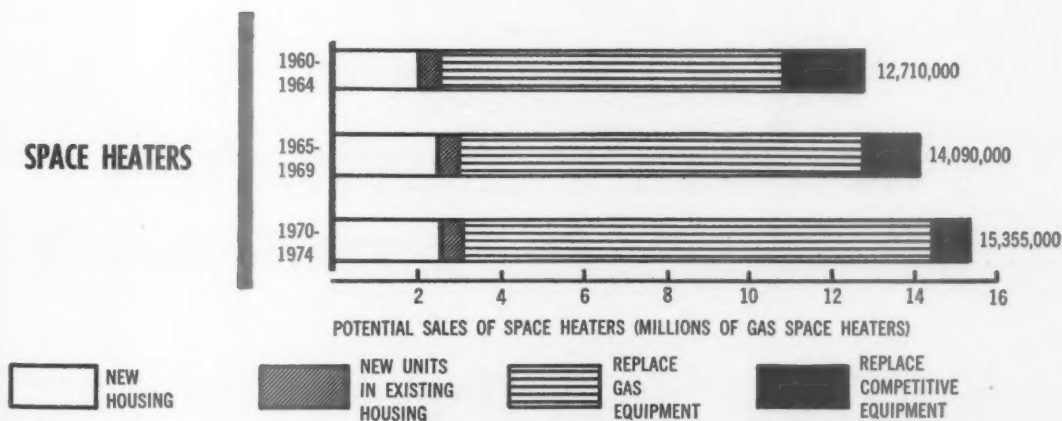
The now-important market for gas central heating as a replacement for competitive fuels will have diminished by the later years of the 15-year period. In the earlier years, the bulk of prospective conversions can be expected to occur in the most recent natural gas areas—New England, the New York-New Jersey metropolitan areas, and the Pacific Northwest. Toward the end of the period so many non-gas units will al-

ready have been converted to gas that the total number of remaining homes available for such conversions will be relatively small.

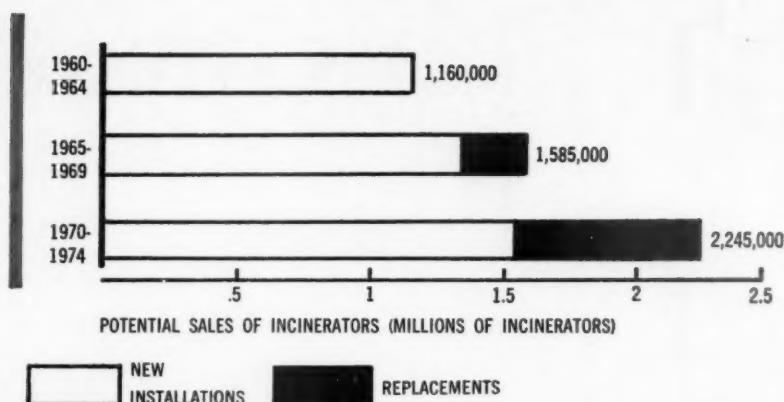
Sales of floor and wall furnaces could run as high as 17.5 million for the 15 years ending in 1974. The new housing market will continue to represent nearly half of the total, especially in view of the relatively higher population and housing growth rates in those areas of the country where floor and wall heating is most prevalent, and where basementless homes are most common. As the decade-and-a-half progresses, moreover, the large volume of units sold since the war will be ready for replacement, and this portion will eventually assume greater importance than the new housing market.

Appearance and styling will be selling points for these appliances, too, because of their location in, or adjacent to, the living areas of the home. In addition, publication of new A. G. A. specifications for wall furnaces, overcoming certain safety objections to existing units, may shorten the average replacement time by several years, as municipal ordinances require installation of the new units. Replacement of gas space heating and of competitive fuel space and floor and wall units

SPACE HEATERS



INCINERATORS



will continue to hold a modest, though declining share of the potential market.

If the sales promotion work of the 'Fifties can be expected to have done its work in emphasizing the increased comfort obtainable from using sufficient units in each home, the market for additional units in existing homes will have been satisfied to a large extent by 1960. The upgrading market will exist predominantly in new homes in which builders have installed only a minimum of equipment, in homes recently converted from space heating (where the changeover is achieved in stages rather than all at once), and in homes that have recently been enlarged by their owners to take care of larger families.

Sales of gas space heaters could achieve a total of better than 42 million units during the fifteen-year period beginning in 1960 in spite of the existing tendency away from space heating and toward central heating. Most of this potential market will continue to be concentrated in the replacement of existing gas space heaters. The level of such replacements can remain high despite the conversion of many space heated homes to other methods of heating if continued promotion emphasis is used to stimulate people to replace their equipment promptly at the end of its economic life.

The possibility of stimulating a replacement market for space heaters by a reconditioning and export system for traded-in units, comparable to that described for ranges, may be worth considering. Again, it should be emphasized that

fashion and styling must play an important part in this promotion, since these units, more than any other type of heating equipment, are constantly on display.

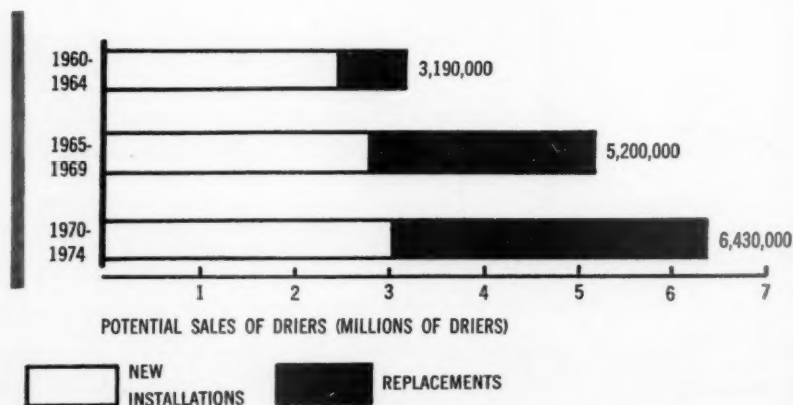
The industry can anticipate that installations in new homes will improve their proportion of total potential sales of space heaters because of the active level of new home construction. Furthermore, within very few years after construction many new homes using gas for central or floor and wall heating install auxiliary space heaters for extra comfort. Additional heaters may be installed in completely spaceheated new homes, for extra comfort or because homes are enlarged.

It is entirely possible that saturation of gas incinerators could increase from a potential of less than two per cent of the homes in the country in 1960 to nearly 7.5 per cent of all homes by the end of 1974. The future of this appliance depends very largely upon convincing the public and municipalities that it is by far the best and most convenient way to comply with requirements on garbage control. In addition, the elimination of ugly and noxious garbage from the increasingly popular family outdoor living areas will be a strong promotion feature, particularly when new improvements in complete combustion and smoke control are perfected.

If the useful lifespan of an incinerator can be considered to be about 15 years, then replacements of older units will begin to influence the market in 1965-69, and by 1974 may

(Continued on page 48)

DRIERS



Gas Industry's

PLAYHOUSE 90



RED SKELTON



IMOGENE COCA



JULIA MEADE



CHARLTON
HESTON



ETHEL BARRYMORE

Gas utility companies throughout the U. S. will make their network television debut Thursday, Jan. 10, as sponsors of CBS Television's distinguished new 90-minute dramatic series, "Playhouse 90," with talented Julia Meade as the industry's hostess.

The American Gas Association's first use of TV networks as an advertising medium was announced by Frank H. Trembly, chairman of the National Gas Industry's Television Committee, and William H. Hylan, CBS-TV vice-president. Mr. Trembly is director of sales for the Philadelphia Gas Works.

The gas utility companies, transmission companies, manufacturers, equipment suppliers and producers represented by A. G. A. will sponsor, on alternate Thursdays, a half-hour portion of "Playhouse 90" on more than 125 TV stations across the nation. The pro-

gram is broadcast each Thursday at 9:30-11:00 P.M., Eastern Standard Time. The gas industry will sponsor the 10:30-11:00 segment every other Thursday.

Julia Meade, in addition to presenting commercial messages, will also make appearances at gas industry gatherings throughout the country. She is already known to network audiences because of her regular appearances on other top-rated television programs, such as "The Ed Sullivan Show" and "Hit Parade."

Miss Meade is also available for local utilities who wish to make special arrangements with her for a series of their own TV commercials. Her presence can add glamour and excitement to home shows, special gas company anniversaries and other occasions.

Time magazine says Miss Meade "is blonde, beautiful and alluringly shaped. She is seen by the most people—an esti-

mated 65,000,000 people a week—and she appears on all three networks. Julia Meade is an established TV personality, a combination of dignity and charm."

A top TV researcher at *Time* says of her, "No one in our experience has had a higher acceptance with women. We have tested her for voice, appearance and personality, and 90 per cent of the women questioned gave her very high scores."

"Playhouse 90" is the first hour-and-a-half drama series ever to be presented by a television network on a regular weekly basis. It is produced by Broadway and television veteran Martin Manulis.

The trade paper *Variety*, known as the bible of the entertainment industry, describes this program as "The year's major new entry in the programming-rating sweepstakes."

Although a new program, the initial

ratings indicate that it will be one of the most popular shows in all of television, one that will reach an enormous audience, at a low cost per thousand, and a vehicle of calibre and prestige of which the gas industry can be proud.

A Trendex rating indicated that "Playhouse 90" had almost three times the audience of the opposing dramatic show, which up to now has been one of the most popular, best known, and long established dramatic shows on television and radio.

These ratings have also shown that the audience continues throughout the show, and that the highest rating half-hour segment was the last one. This has commonly been true of most dramatic shows.

Thus far, "Playhouse 90" has presented such vehicles as Pat Frank's "Forbidden Area," Rod Serling's "Requiem for a Heavyweight," "Sizeman and Son," "Rendezvous in Black," "The Country Husband," and "The Big Slide." Charlton Heston, Tab Hunter, Vincent Price, Jack Palance, Ed Wynn, Keenan Wynn, Kim Hunter, Eddie Cantor, Farley Granger, Peter Lorre, Mona Freeman, Franchot Tone, Laraine Day, Boris Karloff, Viveca Lindfors, Frank Lovejoy, Barbara Hale, Red Skelton, Shirley Jones, and Diana Lynn are among the stars appearing.

An impressive list of comedy, mystery and fantasy properties by top novelists, playwrights and television writers has al-

grams—"Playhouse 90" and two half-hour programs. The vote gave an overwhelming margin to "Playhouse 90."

Several days later the Television Commercials Subcommittee headed by Thomas H. Evans, Equitable Gas Co., was meeting in New York on tentative commercial plans, and voted their opinion unanimously in favor of "Playhouse 90" as an ideal commercial vehicle for the gas industry.

The Television Program Subcommittee then met in New York and carefully reviewed all the facts with the A. G. A. agency, Lennen & Newell, Inc., who also endorsed and recommended "Playhouse 90." This committee, authorized to make the final decision, was polled. Members not present voted by telephone or telegraph. The order was authorized by a large majority.

Within one hour of the placing of the firm order, a very large national advertiser sought the franchise just secured!

Co-sponsors are Bristol Myers and Singer, alternating in the first half-hour; Ronson, which takes the second half-hour every week, and Marlboro cigarettes, which will alternate with A. G. A. on the last half-hour in a so-called major-minor relationship. This means that one week the gas industry will get two commercials (the major night), and the next week one commercial. In effect, gas industry will be seen and heard weekly.

Considerable thought was given to the possibility of a half-hour program where we would not alternate with more than one sponsor. However, the most important factors felt by a great majority of all of the committees were greater impact, prestige and circulation. Actually about the same number of commercials occur in any given 90-minute segment in night-time television.

All participants will soon receive a series of bulletins on such matters as station line-up, commercials, commercial policy, the mechanics of local cut-ins, and a whole host of promotional suggestions.

A major objective will be for the local sponsoring gas companies to identify themselves with the program to the extent that in each area "Playhouse 90" will become known as "the gas company show."

With the achievement of this goal, the gas industry will not only be in television, but in the very top segment of that medium.



Merle Stanton, president of CBS, sits with C. S. Stackpole as he signs contract for TV show. Looking on are (l. to r.): N. Keesley, Lennen & Newell; S. F. Wikstrom, A. G. A.; Tom Lane, Lennen & Newell; W. H. Hyland, CBS

If they are good, they hold their initial audience and gather tune-ins as the program progresses.

These quotes from newspapers give an idea of the program's quality:

New York Journal American: "The finest serious drama seen so far on television."

New York Daily News: "A dramatic knockout."

Cincinnati Post: "Gives new stature to TV."

Boston Record: "TV's finest dramatic show."

New York Times: "TV's most exciting development of the season."

Los Angeles Herald-Express: "No one can doubt now that the 'Playhouse 90' series on CBS-TV is the season's greatest new program."

ready been acquired for the future.

The acquisition of "Playhouse 90" marks the culmination of a drive for a gas industry television show initiated early last year. The National Gas Industry Television Committee was set up to raise a minimum of \$2,250,000 for this purpose. This goal was surpassed and the committee's chairman, Mr. Trembly, was given the A. G. A. Distinguished Service Award for his role in this work.

Authority for the actual selection of a program was given to a subcommittee headed by Wister H. Ligon, president of Nashville Gas Co., but before "Playhouse 90" was finally chosen the complete Television Committee was polled. In addition, the General Promotional Planning Committee was polled.

The poll presented three possible pro-

Design high input gas water heater

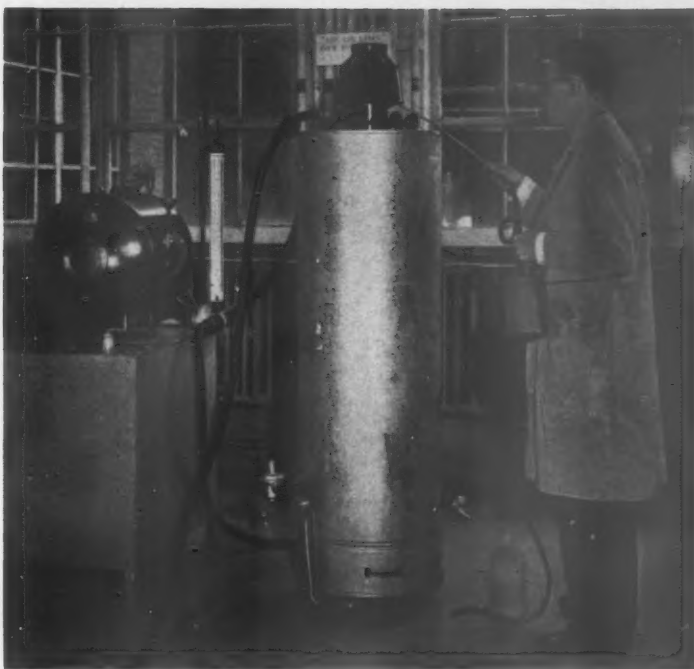
a PAR activity

THE construction of an experimental gas water heater capable of efficiently delivering much larger quantities of hot water than most contemporary units of comparable size is described in Research Bulletin No. 71, "The Application of Heat to Domestic Gas Storage Water Heaters," just published by the American Gas Association Laboratories. The experimental work was performed at the Laboratories under the Association's PAR Project DA-2-WH, sponsored by the Committee on Domestic Gas Research.

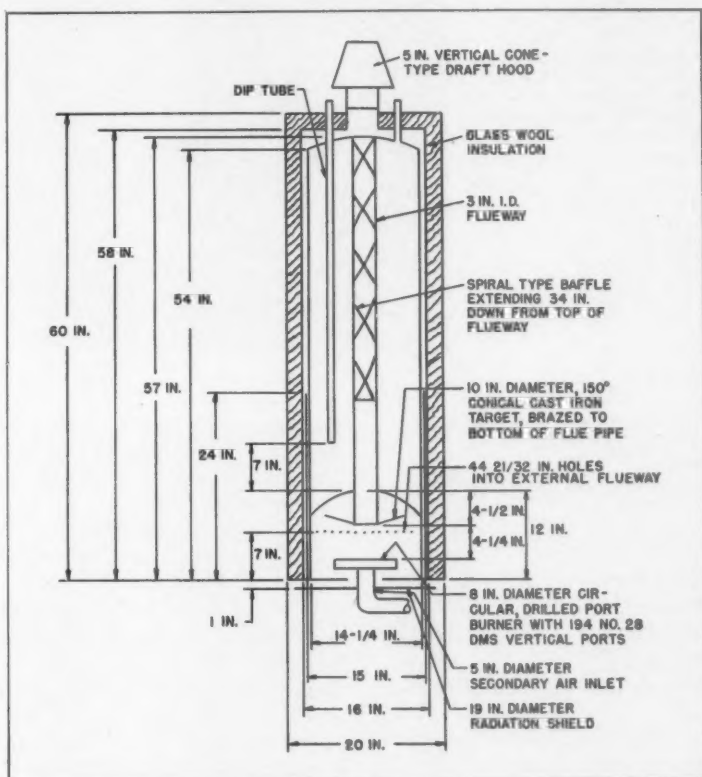
The bulletin makes available data on the relationship between burner and appliance and extends the basic burner design data with regard to the application of heat to contemporary storage type water heaters. This research was slanted toward obtaining information that would be useful in improving water heater performance by increasing the recovery capacity or by reducing the physical size of contemporary units without reducing deliverable quantities of hot water and without making the storage tank more susceptible to corrosion than is the case with more conventional types of water heaters.

One external flue type and two internal flue types of contemporary units were used during the basic experimental studies to obtain a clearer picture of the water

(Continued on page 50)



Technician takes flue gas sample during studies of experimental high recovery water heater designed for research purposes at A. G. A. Testing Laboratories



Experimental 30-gal. storage type water heater incorporates combination internal-external flueway, permits use of high input rates which result in a recovery capacity equivalent to most 60-gal. heaters. Heat transfer through bottom is cut

How Northern Illinois Gas put out welcome mat at annual meeting, attracted record number of stockholders

Showmanship draws stockholders

President Marvin Chandler, Northern Illinois Gas Co., welcomes stockholders to the 1956 annual meeting



By GEORGE W. RYERSON
*Secretary
Northern Illinois Gas Company*

When Northern Illinois Gas Company's more than 129,000 stockholders received notice of the company's 1956 annual meeting, the notice contained the following words:

"We are planning to have a short program of interest to stockholders and a buffet luncheon following the formal meeting. In order to make the necessary arrangements, we would like to have some indication of how many stockholders to expect. For your convenience in replying, we have included a coupon on

the back page of the proxy statement. If you are presently planning to attend, please sign, detach and return the coupon with your signed proxy. If you are not now planning to attend and later find you can come, you will, of course, be most welcome."

This meeting was Northern Illinois Gas Company's second since becoming a completely independent, investor-owned natural gas distributing company. The first annual meeting, in 1955, was attended by some 150 stockholders, including directors, officers, and employee-stockholders. This represented only a minor percentage of the company's entire stockholder list which, at that time, numbered more than 130,000.

President Marvin Chandler and the company's officers that fall took a look at the first geographical breakdown of the stockholder list. It revealed that about one out of every five stockholders resided in the northern Illinois territory served and that an additional two out of five had Chicago addresses, some of these doubtless living in the company's service area. Northern Illinois Gas serves more than half a million customers in 255 northern Illinois communities outside Chicago.

It was recognized that here was a large group of more than 75,000 stockholders, at least a third of whom were also customers, fairly well concentrated geographically, although the company's Au-

ome
ders

S



Following the formal part of the business meeting, three of the gas company's home service advisors demonstrated the superiority of gas



Executive Vice-President Edgar Lundgren tells two stockholders about fast rate at which his company gains new customers

rora headquarters, 40 miles southwest of Chicago's Loop, presented somewhat of a deterrent to a very large attendance. It was reasonable to expect, however, that, with a little encouragement, a larger proportion of this group could be attracted to the next annual meeting.

Greater stockholder interest would certainly result from personally meeting the company's directors and officers and hearing from them firsthand, both formally and informally, about the company's progress. It was felt, also, that a properly planned program would afford an opportunity to display, before a highly interested group, some of the company's services and activities.

Preparations for the meeting were handled by a committee appointed early in the year. After inspecting a number of possible meeting places, the commit-

tee selected the West Junior High School. Here, for the formal part of the meeting, was an auditorium seating 900. A large gymnasium could be used for the buffet luncheon and for exhibit space.

Adequate parking space was an important consideration in this choice. The committee coordinated all plans for the meeting, including the staging by the sales department of a short program highlighting the superior features of the modern gas range in comparison with the electric range. This group was in charge of preparing and arranging exhibits, and arranging for a catering service to serve the buffet luncheon.

The day of the meeting—June 12, 1956—was the third successive day of unseasonable, above 90° temperature. Despite the weather, about 500 stock-

holders and others, from all parts of northern Illinois, were present. Some stockholders brought relatives or neighbors as guests. The accompanying photographs were taken at the formal meeting and at the luncheon immediately following. The whole program lasted from 10:30 in the morning to 2:00 in the afternoon. Out-of-pocket expenses amounted to less than \$5,000.

Company officials reported enthusiastic comments from stockholders present. They also had an opportunity to answer stockholders' questions, not only around the luncheon tables but also in circulating through the exhibit area. Several stockholders, when sending in their proxies, expressed regret at being unable to attend and commented that the idea was a good one.

(Continued on page 51)

luncheon was served to attendees in the West Junior High School gymnasium. The use of three lines helped to reduce congestion



After the luncheon, stockholders viewed various exhibits of gas appliances and illustrations of company operations

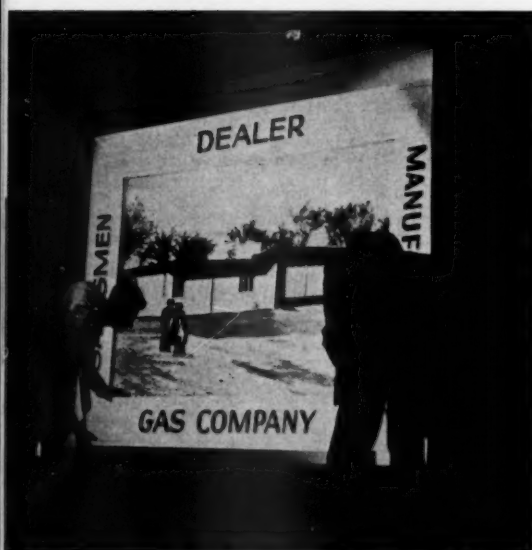


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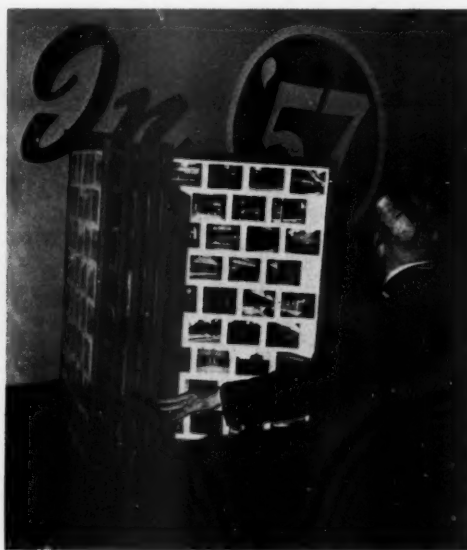
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MONTHLY

Selling the Milwaukee gas story



Manufacturer, dealer, salesman and gas company complement each other to make gas sales



Actual photographs of Milwaukee's 684 appliance dealers were shown to gas appliance manufacturers



Replica of gas company building dramatizes number of advertising impulses in 1

Top appliance makers are targets of 'marketing spectacular' as plentiful gas supply spurs Milwaukee Gas Light Company's sales and promotion

A "marketing spectacular," the first of its kind in the natural gas industry, was produced October 30, by the Milwaukee Gas Light Company. In attendance were 106 company presidents and top sales management executives representing 58 gas appliance and equipment manufacturing firms.

The aim of the meeting was to dramatize the metropolitan Milwaukee market's potential for the sale of gas-fueled equipment and for the sale of natural gas. The meeting was predicated upon the more than twofold increase in the supply of natural gas for Milwaukee.

In planning, production and follow

through, this "Presidential Meeting" represented a fundamental grass roots approach to the problem of unifying the efforts of gas appliance and equipment manufacturers with those of a gas distributing utility.

The prospects of gas supply were outlined by S. Lloyd Nemeyer, president, in his welcoming remarks. Despite almost continuous restrictions of gas for space heating and large industrial applications, Milwaukee Gas Light increased its sales from 11 billion cubic feet in 1950 to more than 24 billion cubic feet in 1955. "By 1959," he added, "our sales will be in excess of 50 billion cubic feet."

"We can no longer complain about an inadequate gas supply," Mr. Nemeyer said. "Our problem, all of a sudden, is how to sell the abundant supply that is now available to us."

The same situation was put to the manufacturers in another way by Robert Wilson, a marketing consultant. "We now have enough gas for you to sell and equip 85,850 homes with gas heat, gas air conditioning, gas water heating, gas dryers, gas incinerators, gas ranges and gas refrigerators."

With charts and figures Mr. Wilson built up an impressive picture of the Milwaukee market and broke it down



Banquet at Milwaukee Athletic Club climaxed gas company's "Presidential Marketing Meeting"



Principal speaker at closing banquet was Ralph T. McElvenny, American Natural Gas president



Break during all-day meeting gives S. Lloyd Nemeier, Milwaukee Gas Light president, chance to chat with appliance executives

into potential sales of all types of gas appliances. In Milwaukee, he said, are 684 retail appliance dealers ready and eager to help manufacturers sell their products.

Just what Milwaukee Gas Light is doing through dealer relations to help sell gas appliances was told by Dale B. Jobson, manager of sales promotion. He outlined the company's comprehensive dealer program, which includes free connection of floor models for demonstrations conducted by home service, sales and service training schools, cooperative advertising and a time payment plan in which the customer is billed on his

monthly gas bill.

Mr. Jobson said the gas company is very anxious to cooperate with manufacturers and cited the cause of a range manufacturer who came to the company last September. He had only six dealers in the Milwaukee market but with gas company aid added 19 more outlets within a month.

The manufacturer came with a goal, a quota, a plan of action, an advertising schedule, a complete promotion and adequate sales manpower, Mr. Jobson emphasized. "It is important to note that this manufacturer was also successful in establishing a delivery, connec-

tion, parts and warranty service here for his dealers," Mr. Jobson added.

A more detailed presentation on the opportunity for manufacturers to sell through dealers was given later on the program by Samuel M. Page, residential sales manager.

"The largest stock of gas ranges in Milwaukee is in the gas company," he said. "But this is not a manufacturer's warehouse and our merchandising department is nothing but an up-grading and high quality dealer for those manufacturers whose appliances we sell.

"Your job," he said, "is to get your dealers to stock appliances so there is

pressure on him to get out and sell. You must back him up with a local warehouse where he can get those models he cannot possibly stock."

More gas for Milwaukee has been a continuing front page story in the city's newspapers, it was reported by Andrew W. Galvin, assistant to the president and director of public relations.

"Looking at this from a dollars and cents point of view," Mr. Galvin said, "we got yards of space that money simply cannot buy.

"Looking at it from a broader point of view, we got the idea across that natural gas is a highly desirable source of energy and one whose abundance is very important to Milwaukee."

Milwaukee Gas Light's sales training program, especially as it relates to dealers and their salesmen, was presented by the program's director, Philip Arnold. Using a tape recorder and lively visual aids, Mr. Arnold sketched in the need for trained, equipped appliance salesmen. The gas company, he said, is prepared to help meet this problem with a planned program.

He outlined the steps as follows: A series of marketing seminars conducted within the gas company's sales department; a seminar on selling for dealers

and distributors; and seminars for new salesmen.

A fourth project, still in the offing, is the formation of a "salesmen's pool," with the gas company to recruit and train salesmen for placement with dealers.

The specific task of Milwaukee Gas Light's advertising is "to pre-sell Milwaukee . . . to establish the gas idea . . . to build consumer acceptance and demand for gas and modern gas appliances." This goal was stated by Gustave A. Trester, advertising manager, and he went on to tell the manufacturers just what Milwaukee Gas Light is doing to attain it.

To dramatize the impact and volume of Milwaukee Gas Light advertising, a novel replica of the gas company building was erected as the executives watched. The foundation was labeled to represent the 4,700,000 advertising impressions made by A. G. A.'s program in the Milwaukee market. Next came lower segments of the building representing 160,000,000 ad impressions made by billboards and 137,000,000 newspaper ad impressions.

The building soared upward with floors representing 69,000,000 television impressions, 51,000,000 radio impressions, 41,000,000 truck card impressions,

and 13,000,000 weekly, foreign language and special interest publication advertising impressions. It was capped by direct mail sales messages that reached 247,000 gas company customers.

The many points covered by the speakers were summarized by Jack H. Mikula, general sales manager, who acted as chairman throughout.

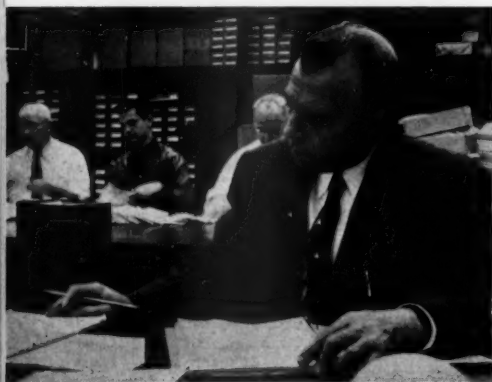
The meeting was produced and presented by Milwaukee Gas Light sales, advertising, sales promotion, sales training and public relations personnel in cooperation with Steltenkamp-Wilson & Associates, of La Grange, Ill., sales and marketing consultants, and the Cramer-Krasselt Co., advertising agency of the Milwaukee Gas Light Company.

Hard hitting illustrations of points made by the speakers were a feature of the meeting. Theatrical spotlights punched home the graphic illustrations that were presented to the audience with the help of four lovely models.

Actual photographs of the 684 appliance dealers in the Milwaukee market were available for inspection by the gas industry executives at the meeting.

Giant blowups of newspaper front pages on which the Milwaukee Gas Light Company's vivid story of ex-
(Continued on page 22)

Meet your Association staff



Carmine W. Veltri

Perpetual motion is personified in Carmine W. Veltri, supervisor of A. G. A.'s mail and machine room. He heads a staff of ten men dedicated to the difficult task of seeing that the 2,000 pieces of mail passing through their domain each day get to the right people in the right way at the right time.

Mr. Veltri joined A. G. A. as a mail clerk in 1929, became supervisor of the mail room two years later. He took on his present job in 1945. He is also assistant to the convention manager at A. G. A. conventions.

Mr. Veltri's major job is scheduling and directing mailings, and keeping records of work done. This brings him into the center of a constant bustle of activity, with supervision of men working the various machines—the Zerox, Graphotype, addressing, folding, meter, and two multilith machines, and the water cooler.

Phumphing, fishing, and family—although not in that order—are Mr. Veltri's main non-occupational interests. He spends most of his time with

his vivacious wife Jean, and their children, Billy, 17, Irene, 16, and Bobby, 9. He's handy around the house—"I refinished my basement into a workroom, playroom, and gas laundry," and does well as an amateur gardener.

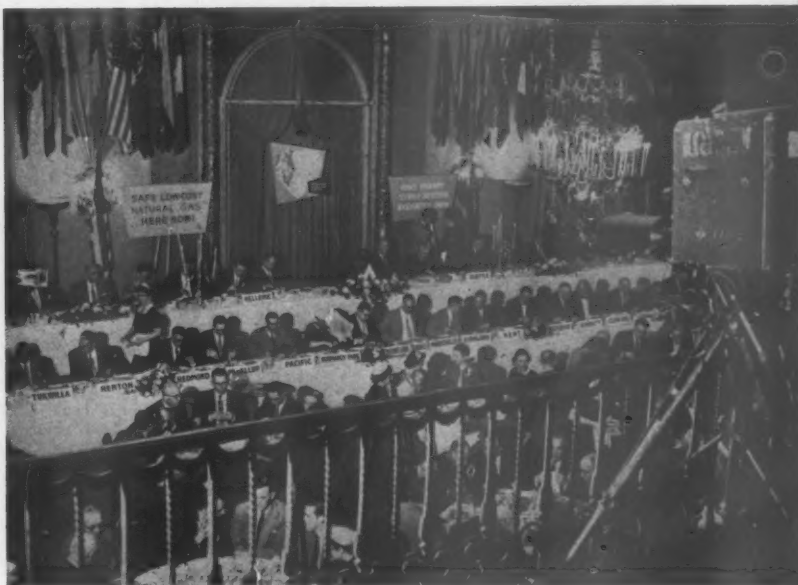
He often goes fishing with other A. G. A. staff members—"We don't catch any, and even when we do we can't hold on to them, but we have a lot of fun." Besides all this, he finds time for his favorite recreation, phumphing. He has phumphed at weddings, anniversaries, parties, and A. G. A. get-togethers.

For the uninitiated, the phumph (and we quote from Mr. Veltri, its inventor) is a "magnificent musical instrument made of an old whiskey keg covered with the blanket from an offset press, with a gut string from a base [sic] violin through the center leading to an arm across the top which gives leverage for different and unsurpassingly beautiful tones," as anyone who has ever heard it can testify.

Banquet hails arrival of natural gas



A. G. A. President Clare H. Zachry tells western Washington of potentialities of natural gas in the region



Mayors of 28 western Washington cities were host to about 400 government, business, and labor leaders at "Salute to Natural Gas" banquet

The energy provided to the Pacific Northwest by a giant new 1,487-mile natural gas pipeline from the San Juan Basin in New Mexico and a 650-mile line being built from the Peace River fields of Canada will surpass the current output of the Northwest's hydro-electric power pool, Clare H. Zachry, president of American Gas Association, predicted.

Speaking at a "Salute to Natural Gas" banquet at which Seattle and the Puget Sound area hailed the initial distribution of natural gas in this region, Mr. Zachry said the arrival of natural gas here will open broad new horizons for industrial expansion.

Among other speakers were Ralph Davis, chairman of the Washington Public Service Commission; Ray C. Fish, chairman of the board of Pacific Northwest Pipeline Corp.; Stuart Silloway, president of Pacific Northwest; W. H. Kierman, British Columbia Minister of

Mines; Mayor Gordon S. Clinton, Seattle; and Mayor C. Norman Dickson, Bellevue.

Washington Natural Gas Co., serving most of the heavily-populated Puget Sound area, began on Oct. 28 the changeover of Seattle customers' equipment to burn natural gas. The changeover is scheduled for completion by January 1.

The salute by a committee of 28 western Washington mayors coincided with the virtual completion of the \$218 million pipeline from New Mexico to the U.S. border in northwestern Washington.

The line is welded solid to the Canadian boundary, said R. D. (Dick) Ricketts, president of the Fish Northwest Constructors which built the line for Pacific Northwest Pipeline Corporation. Natural gas is in the line as far as Seattle. Only testing, backfilling and cleaning remains for the remainder of the line.

Mr. Zachry said development of atomic

energy will not reduce the demand for gas, oil and coal in the foreseeable future.

"In time, atomic energy will be a welcome partner in helping provide the energy for the nation's rapidly expanding fuel requirements," Mr. Zachry said, noting that such requirements are expected to increase 75 per cent by 1975.

The Pacific Northwest pipeline extends from natural gas fields with abundant reserves, he pointed out. Proven reserves in the San Juan Basin are estimated at more than 13 trillion cubic feet, or approximately 65 times the amount of its 1955 production.

The volume of gas in this giant artery will weigh more than 41 million pounds under full pressure and will move to the Pacific Northwest through mountains, deserts and rivers at a speed of almost 24 miles an hour.

Natural gas began moving across the
(Continued on page 49)



● *Washington Gas Light Company*



Smaller of two test kitchens just installed includes Duomatic, Caloric built-in and Roper free-standing

Home service kitchens become sales display

The newest addition to the sales department of the Washington Gas Light Company is Home Service's array of all-purpose Blue Flame Kitchens. Available to the public for inspection, the kitchens show the utmost in modern conveniences as well as practical application in the average home.

The first kitchen seen upon entering the Home Service area is to be used mainly for display and demonstration purposes. It is larger than the average home kitchen but sections of it can easily be adapted in the homemaker's kitchen plans.

Gas appliances in smart decorator colors are used throughout to accent the kitchens' color schemes. A Servel Ice

at Com home service kitchens into sparkling display of latest models in modern domestic appliances



Over-all view of display kitchen shows Servel Icemaker, Western-Holly built-in and freestanding Caloric range. Note gas flame insert on floor



Ruth Sheldon, home service director, prepares to do some testing in third of Washington Gas Light's new kitchens

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maker is the first appliance viewed and explained to the visitor in the display kitchen. Its pink and blue accent colors bring out the pink and blue in the washable wallpaper and the two gas ranges.

The built-in pink Western-Holly range shows the newest and largest in rotisserie and broiler units, easily cleaned oven and top-burner units, oven clock-control, and the newest feature of the gas range—the automatic top burner heat control.

The free-standing range is a blue Caloric which features two heat controlled top burners, a rotisserie-broiler unit and an oversize oven. The Mutschler Portable cabinets in all of the kitchens are maple. To give a little variation, the dis-

play kitchen has cabinets with the fruit-wood finish, now so much in vogue. These wooden cabinets utilize every available space with revolving corner units and numerous roll-out shelves.

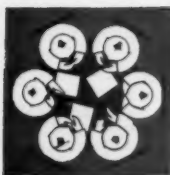
The kitchen is a beautiful display, yet is practical to use. Even the front of the dishwasher matches the finish of the cabinets. To make cleaning less of a problem, an aluminum stainless steel tile is used on the wall between the counter and the cabinets. A peninsula-type counter, quite useful and decorative, is backed by a built-in kitchen desk with an adjustable hanging lamp.

Adjacent to the main display kitchen is the first of two test kitchens providing separate work spaces that can be used

together if desired. They are designed to give the customer different methods of kitchen arrangements. Possibilities are easily adapted to the "U" or "L" shape kitchen plan. A "pass-through" window connects the display kitchen and the first test kitchen, for ease in demonstration preparation and presentation.

In all three kitchens, the double sinks are stainless steel; each unit is equipped with a garbage-disposal. The counter tops are of varied materials. Formica is used in most places; however, there are small wooden-block surfaces available as well as stainless steel counters around the built-in range tops.

The storage cabinets, of natural maple, (Continued on page 22)



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons

Assistant to the Personnel Manager
Philadelphia Electric Company

● **Welcome turnabout**—The following is quoted from a letter sent by a union committee to its members.

"Recent wage hikes must be justified by increased productivity—more and better work. It is not the number of hours that we put in the job, but what we put into the hours that counts. We need more work output per man-hour."

Union? City & County Laborers' Local Union 363 of the International Hod Carriers, Building & Common Laborers' Union of America, Minneapolis.

Employer? City of Minneapolis.

Why? It may be the union's reminder about the potential of replacing "day labor" with mechanical equipment.

In any case, it is a healthy response to automation's challenge.

● **Pension plan for truck drivers**—The International Brotherhood of Teamsters and 4,000 trucking firms in central and south-eastern states have negotiated a pension plan which covers 150,000 drivers and allows transfers of credit between companies. The plan—toward which employers have been paying \$2 a week per driver since Feb. 1, 1955—pays more to those who retire be-

tween 60 and 65 than to those who retire at 65 or over. Here's how it works: \$90 a month is paid from the trust fund to the driver who retires between 60 and 65 and \$22.50 a month, at age 65 and thereafter, in addition to federal social security. The driver who retires at 65 or later will only get \$22.50 from the retirement fund, plus social security. The compulsory retirement age is 70.

● **Better pension plans**—Labor unions headquartered in Washington are providing their locals with expert advice on basic pension planning. Unions hope to send better-trained negotiators to the bargaining tables when pension plans are part of contract discussions. One aim is to prepare unionists to bargain for modernization of older pension agreements. Along with improved language and clarification of administrative details will go a bid for an increase in pension payment levies. The goal is to have the typical retiring worker eligible for pension income of \$140 to \$200 or more a month, including government social security benefits. Some unions will also stress a change in vesting rights in upcoming bargaining. What they want is to insure the right of a worker to retain accumulated pension credits even if he leaves his company before reaching retirement age.

● **Tenderfoot engineers**—Add "Science Scouts" to the list of activities for Boy Scouts of America—which already includes Sea, Air, and Explorer Scouts. Credit goes to a manufacturing concern (Marquardt Aircraft Co., Van Nuys, Calif.) for its origin.

The idea grew out of a community relations program which found three company engineers talking to high school groups about engineering careers. Interest was so sharp that Marquardt, working with BSA, formed a Science Scout Post for boys 14 to 17. Membership of one "project" (their term for patrol) is made up of sons of company employees. Additional projects include other boys living in the San Fernando Valley area. Marquardt engineers are now preparing a Science Scouts manual scheduled for completion in a year. It will follow the format of the manuals for ground, sea, and air.

If you would like to learn how to form a Science Scout's Post at your location, write Robert Hill, scout executive, San Fernando Valley Council, Boy Scouts of America, 14955 Saticoy Street, Van Nuys, California.

● **Work simplification provides savings**—Work simplification is a way of making supervisors and key staff men an active part of a cost-reduction team. Ernest Schleusener, former vice-president, Mueller Brass Co., Port Huron, Mich., writes about this subject in a very interesting way in the October issue of *Factory Magazine*. He indicates that their program is based on the methods and training of Allan H. Morgensen, a consultant at Lake Placid, New York.

His plan includes five steps as follows:

- Pick the job to be improved.
- Break it down into details (analyze each step).
- Question every detail.
- Work out a better method.
- Put the improved method to work.

Supervisors at Mueller Brass are expected to complete work-simplification projects the same way they turn out a product and maintain schedules. They have a goal of one completed work-simplification project each month. They have been doing this for nearly four years and their program is steadily improving.

Their suggestion system (for employees other than supervisors and staff men) backs up their work-simplification program. Cash rewards encourage employees to improve operations. These suggestions are part of the idea system, but are not the last word in work simplification. These ideas are often developed by the supervisors or methods engineers before they are placed into operation.

● **Court decisions**—The U. S. Supreme Court recently denied review to the following cases, thus permitting the most recent decision to stand:

The Court of Appeals for the District of Columbia adhered to the rule it always has followed, that NLRB has no authority to investigate the truth or falsity of non-Communist affidavits. *Precision Scientific Company vs. Mine, Mill & Smelter Workers*, No. 76.

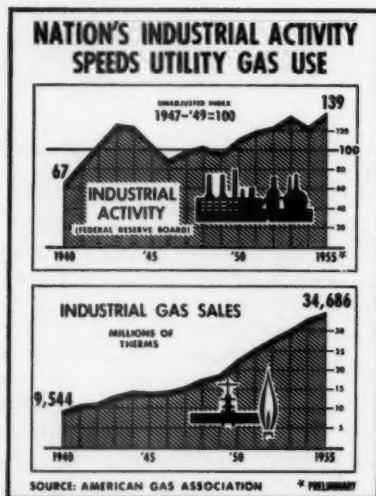
The same District of Columbia Court of Appeals also handed down the decision in this case, that the Typographical Union's non-compliance with the affidavit requirement did not prevent the board from issuing an unfair labor practice complaint and order under the Act. *News Printing Co., Inc. vs. NLRB* No. 91.

The Seventh Circuit Court of Appeals upheld a board finding that the Machinists' local at Peerless Tool and Engineering Company violated Section 8(b)(2) in causing the discharge of employees under a union-shop agreement because they had not paid a strike assessment, although they had offered to pay their regular union dues. *Die & Toolmakers Lodge 113 vs. NLRB* No. 191.

The Tenth Circuit Court of Appeals agreed with the board that the six-month statute of limitations on unfair practice charges did not apply to a case where the union illegally enforced a closed-shop contract, although it had done the same thing in respect to the same two applicants more than six months earlier. *Carpenters Union vs. NLRB* No. 252.

Fifth Amendment discharge—The Supreme Court has let stand the dismissal of a union's action for damages against an employer who discharged an employee for invoking the Fifth Amendment and refusing to testify about his Communist affiliations before a Congressional committee (*United Electrical, Radio & Machine Workers of America vs. General Electric*).

Industry expands



U.S. industrial production has grown substantially in recent years, coinciding with rapid expansion of the gas utility industry. The use of gas for peacetime production, as well as defense output, has more than tripled since 1940

General Management reorganized



W. J. Herrman is chairman of new Committee on Gas Industry Finance and Economics



O. H. Ritenour, Washington Gas Light, heads Financial Relations Committee



E. O. Stoothoff, Texas Gas Transmission, heads Investor Communications



Committee on Economics is chaired by L. T. Potter, Lone Star Gas Company



Committee on Marketing Research is headed by J. B. Guidroz, New Orleans



G. R. Beal, Central Hudson Gas & Electric, heads claim agents group

Culminating year-long planning, the General Management Section makes its 1957 debut reorganized and streamlined for better service to the industry.

The major shift in the realignment is the creation of the Committee on Gas Industry Finance and Economics and its three affiliated committees: Committee on Financial Relations, Committee on Investor Communications, and Committee on Economics. This organization was occasioned by assignment to the Section by the Board of Directors responsibility for all finance and investor relations activities carried on by the Association.

The three affiliated committees will report to the Committee on Gas Industry Finance and Economics, which replaces the former Committee on Economics. The latter group had carried on some finance and investor relations activities in the past.

The new Committee on Economics will handle only economics matters under the new set-up.

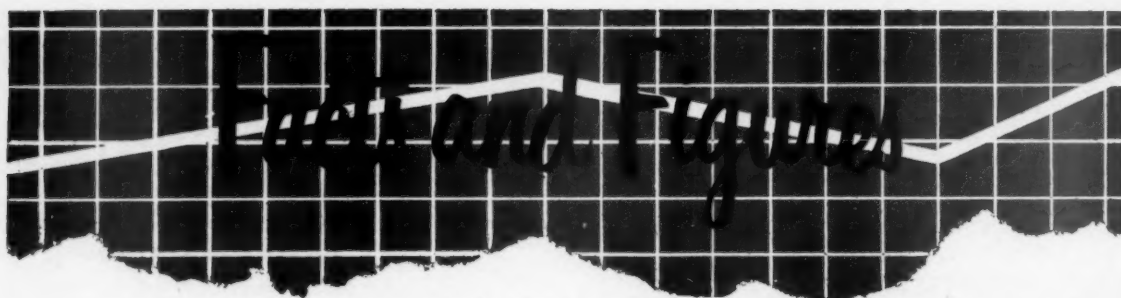
The Committee on Financial Relations will assist the industry to maintain good relations with the financial community—institutional investors, bankers, investment brokerage houses, security analysts, etc.

The Committee on Investor Relations will concern itself with relationships with smaller stockholders and with procedural matters having to do with annual reports, dividend disbursement, stock transfers and related activities.

The former Corporate Secretaries Committee has been discharged, along with two Accounting Section groups in order to create the new Committee on Investor Communications. General management, accounting and public information activities of A. G. A. are represented on this Committee.

Another result of the reorganization has been the decision to raise the former Subcommittee on Marketing Research of the old Committee on Economics to full committee status.

The new Section line-up also reflects
(Continued on page 52)



Prepared by A. G. A. Bureau of Statistics

Housing starts of 93,000 units during September declined 19.1 per cent from a year ago when 114,900 homes were started. The U. S. Department of Labor reported that home building starts for October were 93,000 units, the same as the total for September, down 12.1 per cent from a year ago. During the first ten months of this year 972,400 units were begun, the lowest total since 1953 and down 16.4 per cent from the 1,163,700 homes started in the comparable cumulative period of last year. On a seasonally adjusted basis, October's starts represented an annual rate of 1.1 million starts, down from the 1.3 million units built last year.

The drop in housing starts has had wide repercussions in total shipments of most types of gas and electric appliances. Shipments of 242,500 automatic gas water heaters were 4.9 per cent above the 231,200 units shipped last October. During the first nine months of 1956 a total of 2,200,500 units were shipped. This was 3.0 per cent above the comparable period last year.

Gas range shipments during October totaled 195,900 units, a decline of 6.8 per cent from the 210,300 ranges shipped in the same month last year. Total gas range shipments during the first nine months were down 10.5 per cent from 1,718,300 units shipped last year to 1,537,100 units this year.

The 118,300 gas-fired central heating units shipped during October represented a decline of 21.7 per cent from the 151,000 units shipped during October of last year. For the first nine months of this year, shipments of gas-fired central heating equipment were up 14.3 per cent to 827,600 units. During this same period, oil-fired burner installations were estimated at 506,458 units, a decline of 11.4 per cent from the 571,348 units installed in the first nine months of last year. (Turn to page 22)

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES DURING OCTOBER

(WITH PER CENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	October 1956		September 1956		Nine Months Ending September 30, 1956	
	Units	Per Cent Change	Units	Per Cent Change	Units	Per Cent Change
RANGES						
Gas	195,900	- 6.8	191,000	-12.8	1,537,100	-10.5
Electric	n.a.	n.a.	84,200	-22.9	975,600	- 8.3
WATER HEATERS						
Gas	242,500p	+ 4.9	222,400r	- 6.2	2,200,500	+ 3.0
Electric	n.a.	n.a.	72,100	-19.1	662,900	- 8.4
GAS HEATING						
Furnaces	78,900p	-16.4	87,200p	-14.3	613,000	+ 0.3
Boilers	13,200p	- 2.9	15,900r	+12.0	70,400	+10.9
Conversion Burners	26,200p	-39.1	32,200r	-26.1	144,200	+ 5.4
DRYERS						
Gas	n.a.	n.a.	56,100	+29.5	285,500	+23.8
Electric	n.a.	n.a.	136,600	+ 7.9	775,800	+16.1

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING SEPTEMBER 1956 (MILLIONS OF THERMS)

	1956	1955	Per Cent Change
Month of September			
All types of Gas	4,547.8	4,355.8	+ 4.4
Natural Gas	4,421.6	4,171.9	+ 6.0
Other Gases	126.2	183.9	-31.4
Twelve Months Ending September 30			
All types of Gas	70,927.9	65,464.1	+ 8.3
Natural Gas	67,326.2	62,011.0	+ 8.6
Other Gases	3,601.7	3,453.1	+ 4.3
September Index of Monthly Utility Gas Sales (1947-49 = 100)	200.9	192.5	+ 4.4

PERTINENT BUSINESS INDICATORS, SEPTEMBER

(WITH PER CENT CHANGES FROM CORRESPONDING PERIOD OF THE PRIOR YEAR)

	September			August		
	1956	1955	Per Cent Change	1956	1955	Per Cent Change
Industrial activity (1947-49 = 100)	144p	142	+ 1.4	142r	140	+ 1.4
Consumer prices (1947-49 = 100)	117.1	114.9	+ 1.9	116.8	114.5	+ 2.0
Housing starts, Non-farm (thousands)	93.0	114.9	-19.1	101.0	124.7	-19.0
New private construction expenditures (\$ million)	2,840	2,879	- 1.4	2,862r	2,893	- 1.1
Construction costs (1947-49 = 100)	155.4	148.8	+ 4.4	155.6	148.5	+ 4.8

n.a. Not Available.
p. Preliminary.
r. Revised.

a PAR activity

Design essentials
of single port
gas burners for

optimum performance are developed in Research Bulletin No. 72, "A Study of Single Port Gas Burners," recently published by the American Gas Association Laboratories. Included in the bulletin is information on the effect of design factors and application on lifting, yellow tipping and flashback of flames, as well as on primary air injection characteristics and noise of extinction.

The study was sponsored by the Association's Committee on Domestic Gas Research as a PAR Plan activity and designated as Project DA-4-GU.

Because single port atmospheric gas burners are being used in increasing numbers in contemporary heating equipment, there is an industry-wide need for the fundamental data developed on both the up-shot and the in-shot types. Although simplicity of design is the principal advantage with this type of burner, it is characterized by a tendency for flashback and for yellow tipped flames.

The single port burner differs from the typical drilled port burner in that the ordinary criteria of burner performance, such as limits of yellow tipping, flashback, and lifting flames, can be modified less readily by variations in design factors. Nevertheless, single port burner can be designed to perform satisfactorily in a specific type of appliance at a given input rate if the characteristic flame limits of this type burner are properly evaluated.

In the course of the work, the performance of a number of contemporary burners were correlated with their design features under open room conditions, as well as in combustion chambers. Natural and manufactured gases, as well as a 1,400 Btu butane-air gas mixture were used in these studies.

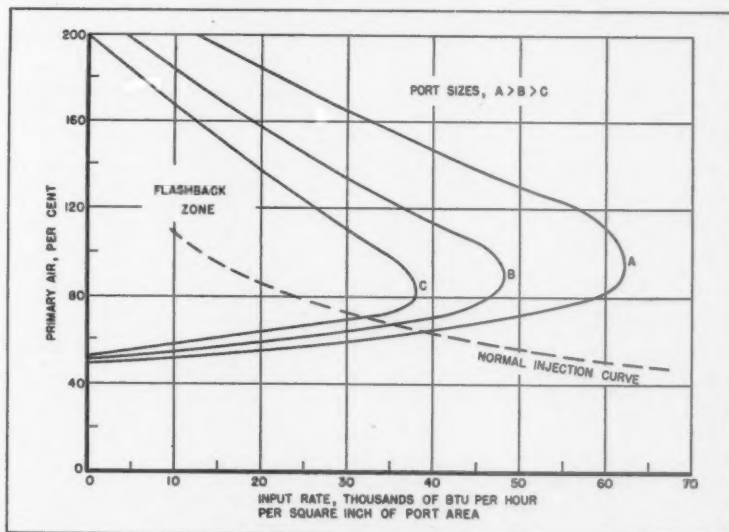
Investigative procedures were set up to correspond as closely as possible with work completed previously on multiple port burners. Thus, the principal objective was to determine for each burner the limiting values of burner input and primary air adjustments which were free from lifting, yellow tipping, flashback and carboning of flames. In other words, the procedure consisted of gradually adjusting the air shutter in incremental steps until the limiting value for each of the above flame characteristics was obtained with a given input rate. The input

(Continued on page 52)

Study design essentials of single port burners



Equipment used in studies of operating characteristics of large, single port burners are (l. to r.) thermal precipitator for carbon detection, wet test meter, manometer, large single port burner, thermal conductivity air-gas analyzer and potentiometer



Performance characteristic curve of three burners under varying gas input rates

Milwaukee Gas Light

(Continued from page 14)

panded gas supplies were shown.

An effective skit dramatized the sales difficulties that are caused by inadequate dealer supplies of gas appliances and the lack of warehousing.

A preview of Milwaukee Gas Light's 1957 advertising program, featuring full color ads and other innovations, was presented. Television ads were screened, and radio spots were auditioned.

In short, sight, sound, color, music, models and drama were packaged to tell the gas sales opportunities in the Milwaukee market.

Universally favorable comments came from the gas appliance and equipment

manufacturers. Some typical remarks:

"This is the kind of unified sales plan that the gas industry needs."

"In 30 years in the appliance industry, I've never seen as comprehensive a program as this."

"This idea will be carried to other utilities, I'm sure."

Climax of the Tuesday meeting was a cocktail party and dinner at the Milwaukee Athletic Club, where Ralph T. McElvenny, president of the American Natural Gas Co., of which Milwaukee Gas Light is an affiliate, was the speaker. Mr. McElvenny described the efforts of the American Natural system to bring abundant supplies of natural gas to its market areas in Wisconsin and Michigan. He assured the audience that proj-

ects are going forward that will keep natural gas supplies abreast of the tremendously growing demand for natural gas in the system's markets.

Mr. McElvenny also stressed the common purpose and need for unity between the utility and the manufacturer of natural gas-burning equipment.

The Milwaukee Gas Light Company followed up the Tuesday meeting with individual sessions with the manufacturers at which specific plans were made for cooperation in an all-out attack on the Milwaukee market. At the end of the individual meetings, the overwhelming majority of the manufacturers promised enthusiastic cooperation with the gas company in a program to step up the sales of gas and gas-burning equipment.

Facts and figures

(Continued from page 20)

Automatic gas clothes dryer shipments reached a record total of 56,100 units in September of this year, up 29.5 per cent over last September. Electric dryer shipments, during the same month, were up 7.9 per cent to a total of 136,600 units shipped. A total of 285,500 gas dryers were shipped during the first nine months of 1956, an increase of 23.8 per cent when compared with the same cumulative period of last year. Electric dryer shipments totaled 775,800 units during the same nine month period, up 16.1 per cent over 1955.

Gas appliance data relate to manufac-

turers' shipments by the entire industry compiled by the Gas Appliance Manufacturers Association. Industry-wide electric appliance statistics are based on data compiled by the National Electrical Manufacturers Association and are reprinted by GAMA in its releases. Data relating to oil-fired burner installations are compiled by *Fuel Oil and Oil Heat*. Data on both gas and electric dryer shipments are released regularly by the American Home Laundry Manufacturers Association.

Total sales of the gas utility and pipeline industry to ultimate consumers during September, 1956 amounted to 4,548 million therms, an increase of 4.4 per cent over sales of 4,356 million therms

in September of last year. Sales of gas to industrial users increased approximately 5.7 per cent in the current month over the same month last year. Industrial production, as measured by the Federal Reserve Board index was 144 (1947-1949 = 100), up 1.4 per cent over September of last year.

The Association's September index of gas utility and pipeline sales is 200.9 (1947-1949 = 100).

During the 12 months ending September 30, 1956, total utility and pipeline sales of gas aggregated 70.9 billion therms, equivalent to an increase of 8.3 per cent over the 65.5 billion therms consumed in the 12 months ending September 30, 1955.

Home service kitchens

(Continued from page 17)

increase in beauty with use. As in the display kitchen, they are designed for workability as well as beauty. Also, included in all of the kitchens are mid-way cabinets with sliding glass panel doors which do away with unnecessary reaching by the busy home service demonstrator or the busy homemaker.

The vegetable bins incorporated in these kitchens are quite decorative as well as accessible. They have a screen-type door for ventilation which also adds to the design of the kitchen. It is often the case in home and test kitchens that no space is provided for oversize platters, cookie sheets and trays. However, each of these three kitchens has a special space in the cabinet for easily storing such utensils. Even the food mixer has a place

of its own in a fold-away cabinet.

A Bendix Duomatic washer-dryer, equipped with a gas dryer, shows how easily the laundry and kitchen areas can be combined. Two ranges are used in the first test area; each is an actual kitchen work-area of its own. The built-in is a yellow Caloric which brings out the yellow and blue aluminum tile and the decorative wallpaper. The other work area in this kitchen is equipped with a white free-standing Roper gas range which has copper tones used as a color accent. The three kitchens have an exhaust fan above each range. All have the decorative hood-type of installation.

The second test kitchen has a very attractive and unusual corner sink arrangement with a flower-planter in the back. Another unusual feature in this section of the test kitchens is the pull-out extension table. With limited space and a need

for low work areas, this table is perfect. Its six-foot length easily folds into the cabinet when not needed. A Servel Ice-maker and a white free-standing Universal range are the gas appliances used in this kitchen. The color scheme is a soft beige with a bright aqua. For candy-making and other such tasks, a granite slab is set into a wooden counter top.

Gas safest fuel

● Only two per cent of the nation's building fires and losses in 1955 were attributed to gas, as gas dropped from 14th to 16th in the National Fire Protection Association's list of 24 building fire causes. This was despite an 8.9 per cent increase in gas consumption. Gas was listed far below any other fuel, including electricity, used in home, business and industry.

Xerography speeds transfer of general equipment property cost records to punched card system

Photography and equipment records

By WILLIAM T. MOTT

Auditor

The Peoples Gas Light and Coke Co.

Accounting for general equipment items in a utility company has been an ever present problem because of the great activity and large volume of small items to be recorded, controlled and accounted for.

Our general equipment records were maintained for many years on a typed card which required a large amount of manual effort to record and control properly the numerous changes constantly being made in this type of property.

The information in these general equipment records was used for trial balance purposes, cycle inventory, insurance, personal property and rate investigation statements and reports. More recently they have been used for average service life studies and for supplying information to the operating departments and divisions of our company for budget purposes and property replacement forecasting.

The replacing or supplementing of the then existing general equipment property cost records with a punched card system, to provide greater flexibility for obtaining statistical and other information, had been contemplated and considered for some time. The advantages to be realized by the use of a supplemental punched card record were more than offset by the disadvantages of having to maintain two sets of records.

Consequently, it was decided to concentrate on the possibility of completely replacing the existing record with a new

and more flexible punched card record. This article will describe briefly what we did to convert our general equipment record to a punched card record by the use of a new photographic process, and



An active Section member, Mr. Mott has been with Peoples Gas Light for 23 years, becoming auditor in October

what we do currently to maintain this new punched card record.

The word "we" refers to The Peoples Gas Light and Coke Co., a natural gas distributing company serving over one million customers within the city of Chicago. The Peoples Company has over \$180,000,000 invested in its utility plant in service, of which approximately \$5,000,000 represents the cost of general equipment items. These consist of some 30,000 individual units such as trucks, automobiles, desks, chairs, typewriters,

adding machines and other portable equipment.

In order to understand our problem in making this conversion, it is essential to know the type of record we were using prior to the conversion process.

The original cost record for each of these items had heretofore consisted of a 5 x 8-in. typewritten card (Exhibit A). This showed the name and description of the article, the date it was purchased, the original cost, the company number assigned to it, the voucher, purchase order and work order number. It also recorded the present and former locations by department, building and room number.

In other words, on this card was recorded a complete description and history of the unit of property from the time it was purchased to its ultimate retirement.

A punched card record would reduce the time needed to balance the general equipment accounts with the card detail at the end of the accounting year to a minute fraction of the usual time; speed the preparation of personal property tax reports and other essential property statements; and facilitate the preparation of data for financing operations and regulatory report purposes.

However, punched cards at the present time are limited in capacity to the number of characters that the machine can print. This limitation made it impossible to record all data pertinent to general equipment by punched card processes exclusively.

To transcribe from the existing card to a punched card all of the required descriptive and historic data other than that

to be key punched, presented a major problem. Because of the large number of existing cards, it was decided that to re-type this information on a punched card was not the desired solution. This would require endless hours of typing and many more hours of proofreading time.

Some other process must be found, photographic or otherwise, to transfer the information shown on the existing card to a punched card. This in itself posed a problem, but even more complex was the problem of transcribing the in-

formation from a larger to a smaller card requiring a reduction from the original record of about 30 per cent.

Investigations were made of an electro-photo process known as Xerography that would transfer and reduce photographically the required information from the 5 x 8-in. card to a punched card.

The term Xerography is a compound of two Greek words "Xerox" meaning dry, and "graphos" meaning writing. Through the medium of Xerography

(pronounced zee-rog-ra-fee) anything that is written, printed or drawn can be copied and reproduced singularly or in quantity.

Xerox equipment consists of three separate units—a camera, a processor and a fuser. The reproduction process may be described as the projection and reduction in one operation of an image by the use of a camera to a static electrically charged plate on which the image is magnetically and invisibly impressed. The image on this electrostatically charged plate is then developed by cascading fine particles of magnetically attracted powders over the plate which produces a visible image.

A card is then placed over the developed powdered image appearing on the plate and the plate and card are inserted in a processor for the purpose of transferring by static electricity the powdered image on the plate to the card. The image is then made permanent by placing the card in a fuser containing a chemical vapor. After a few seconds in the vapor fuser, the card is ready for use.

In the transcription process it was necessary to adjust the camera for a reduction of the image so that the descriptive information appearing on the 5 x 8-in. card could be encompassed on a machine card in an area approximately 2 x 5-in. Certain information appearing on the larger card was not required on the punched card and was deleted by using a fixed mask on the glass of the camera copyboard.

A template was also devised which made it possible to photograph four cards at one time and provide the appropriate ratio of reduction for each card. Each complete cycle in the transcription process consumed about two minutes and produced four separate individual tabulating cards. An average day's production was between five and six hundred cards.

While the Xerox process was going on, certain key information to be punched directly from the 5 x 8-in. card to the photographed punched card was identified. A special colored pencil was used to provide a mark on the 5 x 8-in. card that would not photograph if this operation was performed before the card was Xeroxed.

Upon completion of the Xerography process, the machine cards were sorted into the same sequence as the original cards and the basic data previously
(Continued on page 28)

OFFICE FURNITURE AND EQUIPMENT		ACCOUNT NO.	CLASS	ARTICLE	COMPANY NO.
		372.12		TYPEWRITER	31-0582
DESCRIPTION					UNIT \$426.60
Kind	I. B. M.				DATE OF DEPRECIATION 102
Type	Standard				DATE PURCHASED May, 1954
Length of Carriage	12"				VOUCHER ORDER NO. 10-2962
Size of Type	Pica				PURCHASE ORDER NO. 89211
How Operated	Electric				VOUCHER NO. E-1059
Factory Serial No.	310814				
Model	Std.				
Remarks	A.C. Current				
PURCHASED FROM International Business Machines Corp.					
DATE	MOUSE TEST. NO.	DEPARTMENT	BUILDING	ROOM NO.	DATE RETIRED
May, 1954		Typing & Duplicating	Main	731	
					RETIREMENT ORDER NO.
					SALVAGE
					DISPOSITION
THE PEOPLE'S GAS LIGHT AND COKE COMPANY FORM 148 CHICAGO					

Exhibit A. Original cost record appeared on this 5 x 8-in. card

OFFICE FURNITURE AND EQUIPMENT		ACCOUNT NO.	CLASS	ARTICLE	COMPANY NO.
		372.12		TYPEWRITER	31-0582
DESCRIPTION					UNIT \$426.60
Kind	I. B. M.				DATE OF DEPRECIATION 102
Type	Standard				DATE PURCHASED May, 1954
Length of Carriage	12"				VOUCHER ORDER NO. 10-2962
Size of Type	Pica				PURCHASE ORDER NO. 89211
How Operated	Electric				VOUCHER NO. E-1059
Factory Serial No.	310814				
Model	Std.				
Remarks	A.C. Current				
PURCHASED FROM International Business Machines Corp.					

Exhibit B. Completed punched card with data transferred by Xerox

OFFICE FURNITURE AND EQUIPMENT		ACCOUNT NO.	CLASS	ARTICLE	COMPANY NO.
		372.12		TYPEWRITER	31-0582
DESCRIPTION					UNIT \$426.60
Kind	I. B. M.				DATE OF DEPRECIATION 102
Type	Standard				DATE PURCHASED May, 1954
Length of Carriage	12"				VOUCHER ORDER NO. 10-2962
Size of Type	Pica				PURCHASE ORDER NO. 89211
How Operated	Electric				VOUCHER NO. E-1059
Factory Serial No.	310814				
Model	Std.				
Remarks	A.C. Current				
PURCHASED FROM International Business Machines Corp.					

Exhibit C. Data on current additions is typed on special card

Exhibit gas uses at Metal Show



Huge sign on A. G. A. exhibit at Metal Show was visible from all parts of Lakeside Hall in Cleveland Public Auditorium

Cleveland, Ohio, became the metal center of the world during the week of October 8, while the 38th National Metal Exposition occupied the Public Auditorium. More than 50,000 scientists, engineers and metallurgists from all over the world visited the 475 exhibits making up this largest industrial show.

Included in these exhibits was the American Gas Association-sponsored Combined Industrial Gas Exhibit, which occupied some 200 feet of aisle space in Lakeside Hall. In this A. G. A. exhibit, seven manufacturers of industrial gas equipment showed their latest models and improved methods of industrial gas applications.

American Gas Furnace Co., Elizabeth, N. J., showed a high-production reciprocating furnace with atmosphere control. Work was fed into an automatic quench-

ing tank and by means of special conveyor equipment, the demonstration parts were carried into the adjoining booth, where a Metalwash Machinery Corp., Elizabeth, N. J., conveyorized washer-dryer machine took over the demonstration parts and finished them.

The Continental Industrial Engineers, Inc., Chicago, exhibited a cutaway model of a bell type annealing furnace together with many illustrations of recent installations.

Gas Appliance Service, Inc., Chicago, demonstrated a hot rod heating unit for bar end heating, a rotoflame furnace section and a utility turntable heating unit brazing small parts.

The Gas Machinery Company, Cleveland, had an information center type of exhibit with a background of illustrations showing its industrial installations.

Operating a full muffle furnace at 2,400 F. with atmospheric burners, Charles A. Hones, Inc., Baldwin, Long Island, was a major attraction in the A. G. A. area. They also showed other pieces of equipment and many different models of burners.

Another exhibit that attracted much attention was that of The C. M. Kemp Manufacturing Co., Baltimore, with a display of their atmosphere producer and special controller together with immersion heating and carburetor equipment.

At one end of the combined exhibit A. G. A. had a lounge and information center at which members of the staff and gas engineers from The East Ohio Gas Company were in continuous attendance to answer inquiries and to discuss gas problems with the many visitors who stopped by. In attendance from the



Principal speaker at Industrial Gas Breakfast was L. S. Hamaker of Republic Steel



At head table during the breakfast were (l. to r.): F. E. Hodgdon, J. S. McElwain, L. S. Hamaker, C. L. Gillum, G. M. Young, W. S. Sims

gas company were A. M. Thurston, J. R. Kelch, R. A. Modlin, Henry Aphthorp, E. C. Flammang, R. C. Hauser, and R. E. Miller.

Not all the industrial gas equipment was shown in the combined exhibit. Other manufacturers with gas equipment were scattered throughout the exhibition halls including Brown Instruments Division, Minneapolis-Honeywell Regulator Co., Eclipse Fuel Engineering Co., Holcroft & Company, Industrial Heating Equipment Co., Lindberg Industrial Corp., North American Mfg. Co., Spencer Turbine Co., and Surface Combustion Corporation.

Industrial Gas Breakfast

One of the traditional highlights of Metal Show Week is the Industrial Gas Breakfast. On the occasion of the 20th annual holding of this affair, nearly 100 industrial gas men, manufacturers of industrial gas equipment and representatives of publications in the metalworking field gathered in the Hotel Hollenden to hear the guest speaker and others who addressed the meeting.

Opening the program after breakfast, John S. McElwain, general sales manager of The East Ohio Gas Co., welcomed the guests to Cleveland on behalf of the gas company. Then additional words of greeting from the American Society for Metals were given by the vice-president elect of that organization, G. M. Young, technical director of the Aluminum

Company of Canada.

The principal speaker of the morning was L. S. Hamaker, general manager of sales, Republic Steel Corp., Cleveland, whose subject was "The Second Decade of Growth." Mr. Hamaker said, "I have an almost superstitious admiration for the gas industry. Having grown up with the steel industry there is nothing remarkable, to me, about ore mines and blast furnaces. But the multi-billion dollar game of hide-and-seek played by geologists, seismograph crews and drillers, fills me with the same wonder I felt as a child when the magician pulled the rabbit out of the hat.

"And on those Sunday mornings when I light the fire under the coffee pot, I sometimes get a startling image of the routes that gas has followed from its reservoir deep under Texas soil to its final destination—across a million years and half a continent to my home here, to heat a cup of coffee, or to Republic Steel to heat a thousand tons of steel."

"It may be of interest to you," he continued, "to review briefly some of the steel industry's accomplishments since the end of the war. We entered this past decade with a capacity of 92 million tons . . . and feeling that the economy was strong, we began laying plans for expansion.

"The first two decades of this century had seen a doubling and a redoubling of steel capacity, but the average annual growth was only a little over two million tons. But 1946 through 1955 saw

over three and a half million tons of new capacity per year, a total of 36 million tons for the decade. Republic's share included a 27 per cent increase in facilities for pipe and tubular goods.

Mr. Hamaker said further, "The industry is throwing 15 million more tons of capacity into the pot to be completed in 1958, with more to come after that. Republic, alone, is now in the process of adding 1,776,000 tons at a cost of \$152 million, bringing to \$661,600,000 the funds appropriated or spent for capital items since the end of World War II.

"You people in the natural gas industry agree with us. You are driving your lines steadily deeper into new territory, bringing natural gas to areas that have had to depend entirely on manufactured gas or other fuels before. You are waging a tremendous campaign to keep reserves ahead of demand, in spite of the fact that you are having to drill more wells deeper at a greater cost per foot each year."

In conclusion, Mr. Hamaker said, "Natural gas is important to the steel industry. It is clean. It is easily and accurately controlled—a factor of great importance as steel specifications become more rigid. It is free of sulfur. It is easily transported and handled, and—so far at any rate—it is comparatively cheap. With all these factors in your favor I don't think you have to worry much about industrial customers. We will stand in 1966 just where we stand today—on the threshold of opportunity."

At the Industrial Processing Committee's organizational meeting, plans were discussed and projects were outlined for action in 1957



New and old members of Industrial and Commercial Gas Section Managing Committee met following A. G. A. convention



The first meeting of the American Gas Association Metals Committee for 1957 was held in Cleveland in conjunction with Metal Show Week

General equipment

(Continued from page 24)

checked off was punched and interpreted into the tabulating card by an IBM printing key punch machine. This machine was used for this operation because the cards could be punched and interpreted in one operation.

Certain types of our general equipment, such as desks, chairs, adding machines, and typewriters, etc., had previously been numbered for identification purposes and the number attached to the unit. It was used in connection with making physical verifications of the existence and location of general equipment items on a cycle inventory basis. The decal attached to the equipment and used for identification purposes consisted of a six digit number, the first two digits being used to identify the class of property and the last four digits to identify the individual unit of property.

In connection with the conversion of our general equipment record to a punched card system, a uniform numbering code system was devised for all items of equipment based on the system then in use for the classes of general equipment mentioned above. The new code numbers assigned to the remaining general equipment items were used solely for control and record purposes and were not physically affixed to the unit of property.

Exhibit B illustrates a completed punched card ready to be placed in use in the new general equipment perpetual property record file.

Using the Xerox equipment on a rental basis and two people, in slightly less than 90 days the descriptive matter on the entire general equipment record of some 30,000 cards was reproduced, reduced and transferred to punched cards at a very substantial savings in cost.

The procedures for the current day-to-day maintenance of this new machine record can best be explained by segregating the work into three categories, namely additions, retirements and trans-

fers, and by describing each operation separately.

Separate construction work orders are issued for general equipment purchases. In our company, all general equipment additions are recorded in a separate work order series designated as a 10 Series Work Order. An analysis is maintained for each 10 Series Work Order in which is recorded pertinent data obtained from purchase orders, invoices and other supporting data in connection with the unit of equipment.

Information pertaining to currently completed additions is typed directly from the work order analysis to a specially designed punched card illustrated as Exhibit C. This tabulating card differs in form from the punched card used in the Xerox process, previously described, and was designed to avoid key punching over any of the typed data appearing on the card.

Typewriters having a special sized type were purchased and used to insert all of the necessary information to the punched card used for current additions. These typewriters permit the typing of the information between the lines to be key punched and therefore none of the information is deleted in the key punching process.

Each new item of general equipment has a class and company number assigned to it for control purposes at the time of purchase. After each month's current addition cards have been key punched and verified, the cards are sorted by location and account and balanced to a control schedule.

The addition cards are then reproduced on a green striped tabulating card and the duplicate card is then filed separately in a "current year's addition" file and is used in tabulating all monthly, periodic or annual statements and reports as required. The original punched card is filed by account and location number in the general equipment perpetual property record file.

Separate retirement work orders are issued for general equipment items to be disposed of. All general equipment retirements are recorded in a separate work order series designated as a 60 Series Work Order. As soon as a notice has been received stating that the general equipment item has been actually disposed of, the punched card is removed from the perpetual property record file and all pertinent data such as retirement work order number, amount of salvage

and other disposition data is typed thereon.

The cards are accumulated monthly and are punched to indicate the year of retirement. The cards are then sorted by account and location and a list prepared to verify the original cost of property retired with a control schedule. Monthly journal entries are prepared to reflect on the company's records the original cost of the general equipment items retired. The punched cards are filed in a "current year's retirement" file and are used in preparing monthly, periodic or annual statements and reports, as required.

As items of equipment are transferred from one account location or department to another, the punched card is abstracted from the perpetual property record file and the new account, location or department is inserted manually on the punched card. These cards are then accumulated and new cards punched showing the new account, location or department. The original punched card involved in the transfer is then key punched in a separate column which eliminates this card from any subsequent listing by location.

Before refiling the new card reflecting the transfer, the card is reviewed and checked to verify that the information pertaining to the transfer is correctly shown on the new card. Both the original punched card and the new card are then stamped, "See Additional Card," to insure that both cards will be removed from the file and used for any subsequent report or statement. The reverse side of the original punched card is also stamped to show the number of the ticket or date of letter authorizing such transfer.

After each month's current transfer cards have been key punched and verified the cards are sorted by location and account and balanced to a control schedule. The transfer cards are reproduced on a green striped tabulating card and these cards are then filed separately in a "current year's transfer" file and are used in tabulating all monthly, periodic or annual statements and reports as required.

The original card having the complete Xeroxed or typed information and the new card with only the revised key punched data are filed together in the perpetual property record file according to new account, location or department.

The newly designed general equipment perpetual property record file is now not only used for trial balance pur-

(Continued on page 51)

Correction

● In reporting the Account Section convention activities last month, "The Monthly" inadvertently credited the paper, "Flight Plan of a Service Order," to the Customer Relations Committee. The project was under the sponsorship of the Customer Accounting Committee.

*A report on the gas industry's search for
standard meters to reduce pyramiding maintenance costs*

Toward standard meter specifications

By JAMES WEBB

*Chairman, Task Committee on
Meter Purchase Specifications
Consolidated Edison Company
of New York, Inc.*

The gas industry, like most industries in America, has known for many years of the benefits of standardization, including those which might accrue from the standardization of the domestic gas displacement meter.

A program to establish standards for gas meters has been considered on a number of occasions, always without result. Now, however, such a program has been initiated which bears indications of success.

Two years ago, the A. G. A. board of directors asked the Operating Section to attempt to set up specifications for small volume, domestic gas meters. This request was turned over to the Section's Distribution Committee, which, thereupon instructed its Metering Subcommittee to set up a Task Committee to undertake the project. This Task Committee was organized with 13 members, seven representing utility companies and six representing manufacturers.

The Task Committee at all times functioned as a representative of A. G. A., always bearing in mind that any specifications it might develop should be, as far

as possible, representative of the entire industry.

A standardization program to be effective and worthwhile must have the cooperation and confidence of all interested parties, such as top management, purchasing agents, meter engineers, distribution engineers, storekeepers, meter superintendents, and manufacturers. The goal should be economy with efficiency, which can be obtained only by a complete understanding of each other's problems.

To attain standardization, we must avoid the pitfalls which have deterred meter standardization in the past. For instance, one of the most severe stumbling blocks to standardization is a natural resistance to a change of any kind. This may be attributed to complacency on our part.

This complacency in regard to standardization has been overcome somewhat in the past two years, partly due to more expressive thoughts being advanced in metering today, which in turn has resulted in bringing forth more liberal thinking. All of us at some time have advocated certain individual ideas to be incorporated in meters and lived with them for many years.

This line of reasoning was satisfactory when local operating conditions with manufactured gas warranted these numerous variables. Today with the increased use of natural gas and the conversion to natural gas by many utilities, our future problems if any, should be on a common front.

At this time, we should ask ourselves the question, "Why standardization?" "Economy" is the only answer; whether it be standard routines, procedures, operations or equipment, standardization pays off.

Standardization is simplification and simplification is economy. Simplification is the organized use of common sense to find easier and better methods of producing a product. The objective of both manufacturer and purchaser should be to produce and buy a better product at a lower cost.

It is now time that we take stock of our present-day conditions and look into the future.

Prior to the first meeting of the Task Committee, there was an impression prevailing that the Committee was to design a gas meter. This was not true; the Committee's responsibility was the preparation of specifications for the purchase of gas meters.

These specifications were not presented with the intention of designing a gas meter but to inform the meter manufacturers what we desired in performance, interchangeability, sustained accuracy and stability in a displacement gas meter. The Committee did not take the position of specifying size of case, type of valves, type of cover arms or the material or size of any other parts of a meter.

Materials and methods of fabrication may vary considerably, therefore, the specifications were written so that the

Excerpts from a report made at Operating Section meeting, A. G. A. Annual Convention, Oct. 15-17, 1956, Atlantic City.

manufacturers would not be restricted in the design or in the use of new materials which may be brought forth.

Recognizing the enormous responsibility of this task with its many problems, there were many questions to be answered. How to get these answers—a questionnaire—yes, but will the Committee get cooperation? We did. It was decided to contact the accredited delegates of the member companies of the Association explaining the purpose of the Task Committee and enclosing a questionnaire.

Companies were selected from all parts of the country, ranging from small companies with 5,000 meters to large companies with 1,500,000 meters. The replies were complete and informative, coming from 69 of the 79 member companies that were selected. With this kind of interest and cooperation displayed by management, the Committee went into action.

With the increased and widespread use of natural gas throughout the country, the sizing of meters became very important. Ninety per cent of the meters on the system are used to measure domestic customers. These customers are divided into the following usage groups:

Range only.

Range and hot water heater.

Range, hot water heater and space heating.

Companies with a combined total of 18,300,000 meters reported these facts on the questionnaire:

8,700,000 house heating customers

6,600,000 range, hot water heating customers

Pakistani seeks job

● The need to acquire knowledge about natural gas, which has recently been discovered and is now being developed in Pakistan, has prompted a citizen of that country to seek employment in the United States. The gentleman, who has studied in England, wishes to work as a paid apprentice with a gas company, pipeline company, or manufacturer, in a position where he can learn about the American natural gas industry. Companies interested in answering this request may contact J. Stanford Setchell at A. G. A. Headquarters.

3,000,000 commercial, industrial and above average domestic customers

The domestic range and hot water heating customers are now being metered with a 150 cfh meter by most of these companies. Thirty-four companies reported using 150 to 210 cfh meters for house heating and twenty-six companies are using meters of 300 cfh capacity for the same purpose.

Chose three sizes

With this available information, the Committee discussed meter capacities for standardization and tentatively arrived at three sizes, namely: Class 50, Class 175, and Class 250. Minimum capacities are specified. This does not restrict the manufacturer of Class 50 meters, for instance, if he so desires, to supply a meter up to 80 cfh provided he is able to meet competition.

With capacities tentatively decided upon, the Committee proposed specifications covering these points which are embodied in Draft No. 3.

Pressure Rating
Inlet and Outlet Dimensions
Identification
Location of Serial Numbers
Index
Base
Protection Against Tampering
Adjustment for Accuracy
Palletizing
Dust Caps
Diaphragms
Bearings
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Valves
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Color
Performance Requirements
Pressure Drop
Pressure Drop Fluctuation
Pressure Tests
Test for Internal Leaks
Noise Free Operation

This draft was released in June to the member companies who received the original questionnaire. Suggestions and comments were requested from these members. The response was excellent both in the number of returns and the comments received. The majority of the companies were in favor of the draft as presented. All comments and suggestions were discussed at the Committee's last

meeting in September, some of which will be incorporated in the next draft.

As I see the meter picture of the future, there are two problems which confront management.

1. Are we using the present size meters to the best advantage?

2. Is it more economical to purchase a new meter than repair an old one?

These two problems are closely related. For instance, today we are using a meter of 150 cfh capacity for small domestic loads consisting of ranges and ranges and hot water heaters. From experience, it is known that loads of this character can be safely and accurately metered with Class 50 meters. This is the same as using a 10-ton truck to handle a job which a pick-up truck could handle easily. It is basically a matter of economics to use the correct class or capacity meter for the load to be metered.

The questionnaire disclosed that 64 companies have 6,600,000 customers who might be metered with Class 50 meters. This was further substantiated in an article presented at the A. G. A. Accounting Section in Atlantic City in 1954. It was stated in this article that 80 per cent of the bills rendered by one of the larger companies amounted to less than \$5 per month. We know that a 150 cfh capacity meter is not required to measure \$5 worth of gas per month.

With this enormous exposure for meters of the Class 50 size, there is no doubt that a simplified low cost standard meter which if accepted by all of us will help to keep our pyramiding maintenance costs to a minimum. A move of this kind will be a big step toward standardization.

It is recognized by the Committee that standardization will never be 100 per cent perfect. Local conditions will have some effect but if most of us participate, eventually our goal will be attained. Incidentally, the meter manufacturers are now supplying meters which fall in the Class 50 category. These meters are interchangeable with present meters of 11¼" centers and are simple in construction.

This reasoning will also apply to meters of other sizes. Maximum half-hour non-coincident demand tests have been made on average residential house-heating customers and the results disclosed that a meter of 250 cfh capacity is ample for installations of this kind. One of the state meter committees is now on record as favoring a meter of this size for

(Continued on page 49)



Mr. Tullie (above) devised the gas merchandise certificate at right—a gimmick that wins a "yes" instead of a "maybe" when closing a sale



Here's a double-barreled sales closer

By JOHN F. TULLIE
General Sales Manager
Brockton Taunton Gas Company

Every sales manager is constantly on the lookout for a "gimmick" that will help his men close sales—the added attraction that wins a "yes" instead of a "maybe," that gets the customer's signature on the dotted line.

When you find one that does all this, and paves the way for the next sale too, you've got a double-barreled gimmick with a future ahead of it.

That, from the vantage point of two years of experience, is what we came up with in the Gas Merchandise Certificate.

There is no way of telling accurately how many original sales these certificates have helped our men close. Certainly it

has been an important factor in many.

But we do have one very significant statistic we can pin down: In the period of slightly under two years since we put the Gas Merchandise Certificate plan to work, 12 per cent of our total appliance sales have involved the redemption of a certificate. Or, to put it another way, one customer out of seven who bought a gas range, refrigerator, automatic water heater or other major appliance has come back and bought an additional major appliance within 18 months or less.

Incidentally, that 12 per cent figure holds whether you're talking in terms of units sold, or in dollar volume. In a business the size of ours—we have about 53,000 meters—that 12 per cent isn't hay. You can apply it to your own sales volume, and see what kind of an increase it might represent to you.

Even if we concede that some—or, if

you like, most—of these additional sales would have come our way in the course of time, at least we closed them sooner, perhaps by years, with the Gas Merchandise Certificate.

These additional appliances are on our lines now. They are consuming gas at a rate we estimate at 20 million feet a year, and that is natural gas at 1040 Btu. Moreover, we expect them to keep right on using gas at that rate, or better, for a long, long time to come. That's one of the many fine things about gas appliances—they last.

We came up with the idea of the Gas Merchandise Certificate in the fall of 1954, as an extra inducement in connection with our promotion of the Old Stove Round-Up. We were looking for something that would help our men close the first sale, and that would pave the way for the next one. (Turn the page)

The certificate, given with the original sale, has a definite dollars-and-cents value, applicable for a limited time only, and only toward the purchase of an additional major gas appliance. We set the value at 10 per cent of the net selling price of the appliance with which it is given—the price of the appliance less any allowance, trade-in, or charge for connections or installation. We set the time limit during which it can be redeemed at 18 months.

We took some time and trouble to make the certificate *look* valuable. We worded it carefully and understandably, got expert advice on layout, made the type big enough to read, had it lithographed in two colors; the second color being, appropriately, the blue of the gas flame.

We provided ample space to type in the customer's name and address, the sale number, and the dollars-and-cents value. The certificates are non-transferable.

To simplify our paper work, the certificates are numbered serially, and bound in books of 100, with a stub on which we enter necessary data both at the time of issue, and when redeemed. These bound stubs give us a permanent record, easily referred to.

We ran off a limited quantity of these certificates without serial numbers, for the use of our salesmen in their kits, and

for other purposes which might arise. From this stock we have been able to furnish specimen certificates to a number of gas companies from whom inquiries have come. We still have a few on hand.

It is flattering to us that a number of companies, including some of the largest, have already adopted the Gas Merchandise Certificate. Some have tailored it slightly to meet their own requirements; others have copied ours, except for a change of company name, even to design and color. We have been happy to have them do so; we are glad to have contributed a usable idea for the benefit of the industry.

Originally we intended this Gas Merchandise Certificate only as a limited-time special offer during Old Stove Round-Up in the fall of 1954. It was so successful that we have continued to use it ever since, applying it not only to sales of ranges, but to all major appliances. In the case of central heating jobs—either conversion or custom—we put a top limit of \$20 on the certificate; all other items earn a full 10 per cent of net selling price.

The important point, however, is that in order to get the allowance represented by the certificate, the customer must apply it toward the purchase of an additional major appliance within an 18-month period.

We present the certificate to the cus-

tomers in a transparent folder which can be purchased at any stationery store. This is done partly to enhance further the look of value; and, more important still, to deter the customer from folding it up and tucking it away where it may easily be forgotten. We insist that the salesman deliver the certificate to the customer personally a few days after the sale is completed. By this means he is already started on his next sale while the first one is still warm, so to speak.

One of the major selling hazards in the gas business stems from an outstanding virtue of gas appliances: They last so long. The result is that once a sale is made, the salesman is reluctant to call back on the customer at regular intervals. New pastures always look greener.

We talk a lot in this business about making "all-gas" customers. Except in real estate developments and promotions, we seldom do much about it.

Our competition has small appliances which lend themselves to constant promotion—toasters, percolators, blankets, irons, lamps and many others. Then, too, they have the advantage—strictly from a selling point of view—that their appliances have a relatively short life expectancy compared to gas appliances.

Whether he admits it or not, the customer is well aware of this short life expectancy—he expects mechanical failure or obsolescence to result in replacement

NEGA and A.G.A. sponsor two-day course on accident prevention



Representatives of 21 member companies of the New England Gas Association attended the recent safety course sponsored by NEGA and A. G. A.,

Oct. 31 and Nov. 1 at the Parker House in Boston, Massachusetts. The course is entitled "Accident Prevention Through Informed Supervision"

within, say, ten or a dozen years. And, just as he expects to turn in his old car for a new model from time to time, he expects to turn in his old competitive-fuel range, refrigerator or other appliance for a new one occasionally.

We in the gas business—selling appliances that frequently serve for 20 to 25 years and more, perhaps without even the need for inspection or adjustment—are inclined to overlook the vast replacement market which new and improved models constantly offer. The customer with an appliance that works perfectly may be, for a long period of time, less susceptible to the appeal of style and color.

In the long run, however, the time comes when the persistent salesman of appliances using a competitive fuel, constantly showing the new and beautiful to the housewife, breaks down sales resistance. The faithful gas range or other appliance that has served so well for so many years falls victim to persuasiveness and salesmanship, aided and abetted by neglect on the part of the gas man who was busy courting new customers while the old ones were being lured away.

So it behooves us to keep on the ball, to get around and see the customers once in a while, to pitch for replacement of old appliances, and the installation of additional ones.

All this, the Gas Merchandise Certificate with its substantial value and its 18-month expiration date, encourages the salesman to do.

The millenium isn't here yet. Even with the added urge of the Gas Merchandise Certificate our own men sometimes still drag their feet. But with our records of expiration dates we can keep the heat on them to follow up customers for additional sales that often are just waiting for them to get around. And the expiring certificate gives the customer a powerful incentive to quit procrastinating and sign on the dotted line.

When, as does sometimes happen, circumstances make it necessary to put a new man into a territory, we are generally able to arm him with a sheaf of unexpired certificates, giving him something definite to go to work on while he is getting acclimated.

We make these sales of additional appliances as easy as possible for both our salesmen and our customers. We frequently adjust the original time-purchase contract without penalty to combine the first and subsequent purchases into a

Storage committee men visit Lone Star



Members of the A. G. A. Underground Storage Committee inspect the Texie Young A-1, Bacon lime injection well at Lone Star Gas Company's Tri-Cities gas storage project. Committee Chairman William F. Burke (facing right), chief production engineer for Lone Star, is shown explaining the well's operation. The company was host to the committee's Oct. 1-3 meeting, attended by 50 gas men

single contract, extending the time, and making the monthly payment correspondingly less than it would be if each were carried separately.

And there's still one more advantage to the customer buying his second appliance. He gets a new Gas Merchandise Certificate, applicable at any time within 18 months, whenever he is ready for the next purchase. Sooner or later we'll make him an all-gas customer, and by then we can start all over again.

With the satisfaction that is sure to come from the use of gas with the splendid appliances available today, the customer with a certificate worth \$20 to \$40 should be a sitting duck for a salesman who is on his toes; and everybody—customer, salesman, company—profits.

If you are considering adding this Gas Merchandise Certificate to your kit of selling tools, let me re-emphasize just a few points that, from our own experience, we regard as extremely important:

1. The certificate should look like a valuable paper, which it is.
2. The value should be shown in dollars and cents.
3. The certificate should be applicable during a specified time—we think 18 months is about right—toward the purchase of any additional major gas appliance, by the original purchaser only.
4. The certificate, if applied to such purchase, should be in addition to all other price concessions, trade-ins, or spe-

cial offers, so that the customer is always assured of the best possible buy, plus the additional sweetening of the allowance to which the certificate entitles him.

5. The terms and conditions under which the certificate may be applied should be clearly and understandably stated on its face. In the nearly two years we have been issuing these certificates—we've issued several thousand, and redeemed several hundred—we've never had a misunderstanding or a disgruntled customer. We don't want any.

6. From our records on the stubs, we know at all times what certificates are outstanding, we know what customers hold them, and when they will expire, and which salesman should get busy and turn them into sales. We keep after him to do so.

The time may come when changing conditions will cause us to drop the Gas Merchandise Certificate. We don't expect to for a while, but we are careful to keep ourselves in a position where we can terminate this offer when need arises. Then, with an 18-month time limit, we'll be able to clear up all our outstanding obligations within a definite time.

We hope to be using the Gas Merchandise Certificate for a long time to come. But you can be sure that long before its pristine beauty has begun to fade, we'll be working out a new gimmick to take its place. We only hope we can come up with another double-barreled one.

Industry news

IGT group meets, elects '57 trustees

NINE MEMBERS have been re-elected and two new members elected to the board of trustees of the Institute of Gas Technology of Illinois Institute of Technology, Chicago.

The election was held Nov. 14 during the 15th annual meeting of members and the board of trustees in the Institute of Gas Technology Building on the Illinois Tech campus.

E. J. Boothby, president, Washington Gas

Light Co., Washington, D. C., was elected chairman of the board of trustees.

Re-elected to three-year terms on the board of trustees were: Frank H. Adams, president, Surface Combustion Corp.; Walter C. Beckjord, president, Cincinnati Gas & Electric Co.; Alexander M. Beebe, president, Rochester Gas & Electric Corp.; Thomas Drever, board chairman, American Steel Foundries.

Also, N. Henry Gellert, of Gellert, Griffin Harrigan & Associates; R. M. Heskett, president, Montana-Dakota Utilities Co.; N. G. McGowen, president, United Gas Pipe Line Co.; Frank C. Smith, president, Houston Natural Gas Corp.; and Harry K. Wrench, president, Minneapolis Gas Company.

J. Theodore Wolfe, executive vice-president, Baltimore Gas & Electric Co., was elected to complete an unexpired term ending in 1957. Marvin Chandler, president, Northern Illinois Gas Co., was elected to fill an unexpired term ending in 1958.

The officers of IGT are: Dr. John T. Rettaliata, president; Raymond J. Spaeth, secretary-treasurer, and Dr. Martin A. Elliott, director.

In his annual report to members and the board of trustees, Dr. Elliott revealed that the gas institute's annual income during the 1955-56 fiscal year was about \$715,000—the highest in the Institute's history and 17 per cent more than in the preceding fiscal year.

"This increase was due almost entirely to an increase of 25 per cent in the volume of research sponsored under the gas industry's PAR Plan in the field of pipeline and gas operations research," Dr. Elliott said.

Sponsored research during the year also was conducted in the fields of appliance development and testing, flow analysis of gas distribution systems, and a variety of petrochemical studies involving the use of natural gas, propane, butane, and petroleum oils and tars as feedstocks.

The Institute's undergraduate educational program continued to expand during the fiscal year, Dr. Elliott stated, and plans are being made to have a more varied geographical distribution of the students in this program. Steps also have been taken to assure an active graduate program.

Dr. Elliott reported that the Institute's fifth annual summer refresher course in natural gas technology had an enrollment of 78 engineers in courses in natural gas production and processing, transmission, distribution, and utilization. Twenty-four states, Pakistan, and India were represented.

The IGT home study course in natural gas production and transmission increased its enrollment by 389 to a total of 1,600 during the fiscal year, with 131 certificates issued to students completing the course during the year.

Giant unified gas exhibit to dominate Chicago Coliseum

a PAR activity

THE LARGEST unified gas exhibit in the history of the gas industry, occupying 600 front feet of exhibit area, will dominate the Coliseum during the National Association of Home Builders convention in Chicago, Jan. 20-24. The expected attendance at this exposition is 28,-

000 builders, architects, distributors and dealers.

Ten New Freedom Gas Kitchens and Laundries designed by *American Home*, *Better Homes & Gardens*, *Household*, *Family Circle*, *House & Garden*, *New Homes Guide*, *Home Modernizing*, *Parents' and Ladies Home Journal* will be the headliners of this unified display.

In addition, the latest in built-in and automatic gas appliances will be shown in individual booths by Western-Holly, Caloric, Cribben & Sexton, Florence, Dixie, O'Keefe & Merritt, RCA-Estate and Roper.

Gas companies are urged to have their local builders see this gigantic display featuring the latest in modern, automatic gas appliances.

Stackpole addresses ASA national conference on standards

MORE THAN 50,000 basic models of gas appliances and accessories have been examined for compliance with American standards, C. S. Stackpole, managing director of the

American Gas Association, revealed at the seventh national conference on standards in New York City's Hotel Roosevelt.

The conference was held in conjunction

with the 38th annual meeting of the American Standards Association, which was host to the several hundred engineers, business executives and government officials attending the meetings on Oct. 22-24.

Mr. Stackpole said: "Some 400 members of the gas industry are voluntarily contributing their time and experience to standards work. They develop new standards or review and revise current standards in the light of the advancing technology."

"Gas companies too need a yardstick by which to measure the acceptability of gas appliances from the standpoints of safety and performance."

"Today, it is estimated that over 95 per cent of all gas appliances available on the market have been tested by American Gas Association Laboratories and display the registered Blue Star approval seal."

"The American Standards prepared under ASA Project Z21 are the foundation of the gas industry's voluntary program of self-regulation—self-regulation in the interest of the gas appliance user."

"The value of this program is tremendous, and its acceptance among utilities, appliance manufacturers, and governmental agencies is evidence of that value," he concluded.



The gas industry's role in promoting standards is described to ASA delegates by A. G. A.'s managing director, C. S. Stackpole (standing), in a talk entitled "After the Standard—What Next?"

Mrs. America visits Russia, Europe, on good will tour

THE AMERICAN gas industry is now making friends all over the world as its ambassador of good will, Mrs. America, visits homes from Moscow to Madrid on a six-week tour.

Accompanying Mrs. America (Mrs. Cleo Maletis of Portland, Ore.) on her trip to Russia and eight European countries are her husband and Bert Nevins, managing director of the Mrs. America Contest.

In her own words, Mrs. Maletis firmly believes that "Homemaking is a universal task and it knows no boundary lines nor geographical obstacles." She feels her visits in typical Russian homes and meeting the average Russian housewife will result in a mutually beneficial exchange of thoughts and ideas and a better understanding of how homemakers of all lands carry out their daily duties to their families. She will do the same in London, Paris, Brussels, Copenhagen, Antwerp, Madrid, Geneva and Athens. In Athens, Mr. and Mrs. Maletis, who are of Greek descent, will meet the king and queen of Greece.

Mrs. Maletis was selected in a contest conducted by Portland Gas and Coke in her home state and then beat finalists from all other states and the District of Columbia in a contest conducted by the American Gas Association in Daytona Beach, Fla., last May. Next year's contest will be held at Ft. Lauderdale.



Ready to board plane for six-week good will tour are Mrs. America, her husband Chris Maletis (r.), and Bert Nevins, managing director of Mrs. America Contest. They are visiting the Soviet Union and eight European countries. In Athens, Mr. and Mrs. Maletis will meet the king and queen of Greece

Wisconsin Utilities Association holds meeting in Milwaukee

THE Wisconsin Utilities Association concluded its three-day meeting Oct. 19 in Milwaukee with a registered attendance of 655 delegates representing gas and electric companies, equipment manufacturers, and distributors.

Announcement was made of the appointment of Dale F. Hansman, secretary-manager of the Racine Chamber of Commerce, to succeed Arthur F. Herwig as executive secretary of the association. Mr. Herwig will retire on pension June 1, 1957, after 36 years with the group. Mr. Hansman will join the staff in January.

Separate convention sessions were conducted by the association's gas and electric

operating sections and by the gas and electric sales sections. A host of speakers from all phases of the gas and electric industries addressed the group on a comprehensive variety of subjects.

The joint all-section luncheon was addressed by Commissioner Arthur L. Padrutt, Public Service Commission of Wisconsin, who told delegates, "Regulation must be reasonable, protecting both consumer and investor. It must be in tune with general trends of business. It must be integrated with the general economy. Current conditions must be recognized." He concluded by saying, "It must always be remembered that regulation is an economic function, not a punitive process."

The joint dinner was addressed by R. W. Leach, president of the association, and vice-president and general manager of the Wisconsin Natural Gas Company.

Of great interest to the group was the report by Frances Zuill, associate dean of the School of Home Economics at the University of Wisconsin. Miss Zuill told sales delegates about the home management house donated by the association to her university in 1941, and the thousands of people who visit it annually. "The home management house," she said, "provides the means of closing the gap between theory and practice, and as a laboratory for home economics students, it is a most important function."

Connecticut Light & Power host to industrial gas customers

IN THE LATTER part of September, The Connecticut Light & Power Company held their second of what promises to be an annual affair for the industrial gas customers served by them. Over 350 guests including representatives from industrial gas equipment manufacturers and CL&P men, gathered in Waverly Inn, Cheshire, Conn., for a social evening, dinner and meeting.

In an exhibition hall adjoining the Inn, industrial gas equipment by some 18 manufacturers was displayed. This included space heating equipment, industrial gas controls, industrial gas process equipment and gas company emergency and test equipment.

Twenty of the industrial gas users also had attractive displays of their products for which gas was used somewhere along the line of manufacture. Among the better known Connecticut concerns were Princeton Knitting

Mills, Inc., Watertown; Seymour Smith & Sons, Oakville; Naugatuck Mfg. Co., Waterbury; U. S. Rubber Co., Waterbury; Peter Paul, Inc., Naugatuck; and the Lux Clock Mfg. Co., Waterbury.

After the dinner an interesting meeting was held at which Chairman L. V. Clark, assistant manager, CL&P, introduced the guest speakers of the evening. Fred C. Schaefer, sales manager, American Gas Furnace Co., Elizabeth, N. J., gave an illustrated talk on automation in heat treating with gas. He spoke specifically on automatic equipment to feed all types of work to all types of continuous furnaces. This equipment can also discharge equipment into a quench, if necessary, and carry work to subsequent processing operations.

"Modern Flame Safeguard Equipment" was the other presentation, prefaced by Ray West, Minneapolis-Honeywell Regulator Co., in a

short talk on the history of control and safeguard equipment. The present modern equipment now available was described by Joe Asklar of the same company.

The meeting closed with an address by A. M. Wade, vice-president, who spoke on the contributions of the gas industry to the many manufacturing operations in which gas was used.

The importance of affairs of this type as a customer relations activity was indicated by the presence of several guests from other New England gas companies. They wanted to see firsthand how the meeting was conducted and to get an over-all picture of customer reaction. It can be said with assurance that the gas industry gains many friends by means of these gatherings where the scope of gas applications can be freely discussed in an off-the-record manner.

French student employed by U. S. utility



American system of keeping books is shown to Hubert Maurice Louis (standing) of Houilles, France, by Henry Rohrs of Elizabethtown Consolidated

A 21-YEAR-OLD FRENCHMAN returned to the University of Paris in mid-October with pleasant memories of three exciting months he had just spent in Elizabeth, N. J.,

as a cadet trainee with the Elizabethtown Consolidated Gas Company.

The utility gave the student, Hubert Maurice Louis, an opportunity to work at the Erie Street plant, where he saw how gas was manufactured, in the South Street distribution department, and in the accounting department.

What he enjoyed the most was his stint at the Green Lane service shop, because he was able to visit homes in the area and see a good cross-section of American life. He was greatly impressed by the number of appliances in the homes. "American appliances have greater efficiency and more safety devices than those in France," he remarked.

Mr. Louis' passage was sponsored by an alumni organization, with the provision that he hold a job while in the United States. To obtain a job, he wrote to several cities in the United States, including Westfield, New Jersey. Westfield's mayor, H. Emerson Thomas, is a friend of Mr. Louis' father, who is a retired consulting engineer in the nationalized French gas industry. Mayor Thomas contacted gas company officials, who offered to hire Mr. Louis as a cadet trainee.

Mr. Louis' views on the people he met while at Elizabethtown Consolidated are best expressed in the question he asked shortly before he returned to his homeland: "May I return next year?"

Build new headquarters

GROUND-BREAKING ceremonies were held recently for Northern Illinois Gas Company's new northern division headquarters in Glenview. Company officials and civic leaders attended the brief ceremony on the 16-acre site at Shermer Avenue and Golf Road where actual construction of the modern colonial headquarters is now under way. Completion is expected some time next summer. The new headquarters will provide about 50,000 square feet of space with adequate facilities for the administrative, sales, customer service, operating, meter, stores and transportation operations.

WHAM publicized

THE PEOPLE in the Denver area recently learned more about the comforts available through warm air heating and air conditioning modernization, as the Rocky Mountain Gas Association aggressively promoted the WHAM campaign. Advertisements in the local press twice a week for a six-week period were run by RMGA, sponsors of the Warm Air Heating and Air Conditioning Association campaign. Editorials on the campaign appeared in the *Rocky Mountain News* during the six weeks. In addition, Public Service Company of Colorado ran several advertisements advising gas heating customers to have their dealers make annual check-ups of their heating equipment.

A.G.A. and Colgate to sponsor mammoth laundry contest

a PAR activity

THE LARGEST promotion ever held in the gas industry will be in full swing next February through March under the sponsorship of the American Gas Association and Colgate-Palmolive Company. The promotion, a nationwide contest, will be highlighted by the awarding of \$215,000 worth of prizes in cash and complete New Freedom Gas Laundries by A. G. A. member companies.

Colgate has agreed to support the contest with \$750,000 in gas advertising, thus bringing

the gas message via TV and magazines into 42 million homes and reaching over 130 million people. The full-time assistance of a Colgate sales force of 700 plus 18 merchandising representatives will be given to promoting the contest. Colgate cooperative grocery advertising dollars will also support this promotion.

Every gas company in America can participate in this tremendous utility-dealer-super market promotion.

Colorful Colgate display material on the contest and entry deposit boxes are available

to gas companies at cost.

Contestants in the contest are required only to complete a statement. Winner of the first prize will receive \$15,000 in cash plus a New Freedom Gas Laundry, and the next 50 winners will each receive a New Freedom Gas Laundry. There will also be 150 local prizes.

The first A. G. A. gas company members to sign an agreement to participate in the contest will receive one or two of the complete laundries worth more than \$1,100 retail.

For further information on the contest, write to the Promotion Bureau at A. G. A.

PG&E plans to construct 200-mile, \$9.5 million pipeline

PRESIDENT N. R. Sutherland of Pacific Gas and Electric Company has disclosed that PG&E plans to construct a 200 mile pipeline next year, at a cost of \$9.5 million, to bring a large new supply of natural gas into Humboldt

County. More than 20 million cubic feet of natural gas daily will be carried over the proposed new 12-inch transmission main, nearly quadrupling the daily deliveries presently available from the local Tompkins Hill field.

The line will take gas from the Beehive Bend, Perkins Lake and Corning fields, in Glenn and Tehama counties, extend north to Red Bluff and then west across the valley and rugged mountains to Fortuna, Eureka and Arcata.

Marjorie Chandler named Home Service Committee chairman



Marjorie Chandler

THE APPOINTMENT of Marjorie T. Chandler, home service director of the Consumers' Gas Company of Toronto, as chairman of the Home Service Committee was announced in Atlantic City by W. D. Williams, 1957 chairman of the A.G.A. Residential Gas Section.

Miss Chandler's home town is Charlottetown, Prince Edward Island. She is a graduate in home economics of Acadia University in Nova Scotia. Previous to her home service work in Toronto she served as dietitian at the University of Toronto and the RCAF. She is past president of the Toronto Home Economics Association and holds membership in the Toronto and Canadian Dietetic Associations, the Canadian Home Economic Association, and the Woman's Advertising Club of Toronto.

During her six years as Consumers' home service director, she has emphasized demonstrations for club groups, business girl contacts,

and the schools. The "Miss Future Home-maker" contest for home economics students held annually at the National Home Show has had wide recognition throughout Canada. Forty-two teams representing thirty-seven public schools in the Toronto area participated in the Consumers' Gas booth during the 10-day National Home Show in April attended by approximately 100,000 people.

The home service department of the Consumers' Gas Company will be host company for the annual A.G.A. Home Service Workshop to be held in Toronto, Ontario, Feb. 4-6, 1957.

Philco to continue manufacture of Bendix gas appliances

PHILCO Corporation has entered the gas appliance field with the acquisition of the Bendix line of appliances from Avco Corporation. Any doubts on this were laid at rest during a meeting of 600 Philco distributors in Chicago on Nov. 16, when James M. Skinner Jr., Philco president, confirmed the sale.

The importance of gas in Philco's planning was indicated by the presence of C. S. Stackpole, American Gas Association managing director, who was invited to address the national gathering. Mr. Stackpole welcomed the giant corporation into the ranks of gas appliance manufacturers and urged the distributors to

capitalize on gas home laundry promotions initiated through A. G. A. and carried out by local utilities.

He said that the Bendix name has the respect of the gas industry, earned through the production and vigorous promotion of gas dryers and the gas "Duomatic." Mr. Stackpole outlined to the distributors how gas home laundry promotions are evolved through the Gas Industry Development and PAR programs. Through the latter, he said, the industry is cooperating with Colgate-Palmolive to present the greatest laundry promotion in history during 1957.

A Bendix innovation—price parity between gas and electric dryers—will be retained by Philco, it was indicated at the meeting. Continued close cooperation with gas utilities is also indicated by the retention of the services of Norman Millard, who is well known throughout the industry as utility representative for Bendix.

Among other speakers addressing the Philco distributors were James Hufnagel, manager of the laundry division, and Ray George, promotion manager. Bruce A. McCandless, A. G. A. assistant managing director, was also present.

El Paso would acquire Pacific Northwest by exchange of stock

DIRECTORS of the El Paso (Texas) Natural Gas Company and the Pacific Northwest Pipeline Corp., Salt Lake City, have approved a plan under which El Paso would acquire Pacific Northwest through an exchange of stock.

Shareholders of both companies must vote on the proposal. El Paso has called a stockholder meeting for Dec. 21 for the purpose of authorizing the necessary shares of common stock to be used in the exchange.

It is expected that the offer of exchange will be made to Pacific Northwest Pipeline stock-

holders on or about Jan. 15.

If the proposed exchange is consummated, Pacific will remain as an independent entity with headquarters in Salt Lake City and its stockholders will have representation on the El Paso board approximately proportional to their ownership.

Pacific Northwest is the owner of 70 per cent of Northwest Production Corp., its principal subsidiary. Through other subsidiaries, Pacific Northwest owns 25 per cent interest in the Westcoast Transmission Co., and 49 per cent interest in the Phillips Pacific

Chemical Company.

Pacific Northwest owns and operates a natural gas pipeline system, recently completed, that supplies natural gas to customers in Colorado, Utah, Wyoming, Idaho, Oregon, and Washington, from fields in the Southwest area.

El Paso also owns a natural gas pipeline system in the Southwest, which delivers gas mostly for sale to utilities in west Texas, New Mexico, and in Arizona and at the Arizona-California boundary to distributors in California and Nevada.

Operating, personnel, safety representatives attend Ebasco meeting

OVER 175 operating, personnel, and safety representatives attended the annual safety meeting for client companies held by Ebasco Services Inc. at the Sheraton-Blackstone Hotel, Chicago, Oct. 22-24, in conjunction with the National Safety Congress. Meeting chairman was W. T. Rogers, Ebasco safety director.

The meeting theme, "Accidents Are an Index of Efficiency," was presented in a talk by C. B. Boulet, vice-president, Wisconsin

Public Service Corporation. Mr. Boulet stressed the necessity of safe operation as one of the best methods for cutting operating costs and increasing efficiency.

Other topics of discussion at the three-day meeting included how to sell the safety program, how to analyze car accidents to determine fault, the psychology of safety, and a round-table discussion on common problems in gas and electric production, distribution,

and transmission.

Arrangements for the program were made by Mr. Rogers and a Program Committee which included B. C. Hall, safety and training supervisor, Carolina Power & Light Co.; W. Ismay, personnel manager, Arizona Public Service Co.; V. V. McDonnell, safety director, The Montana Power Co.; and R. A. Williams, safety director, Arkansas Power & Light Company.

Acquire pipeline

SCRANTON-SPRING BROOK Water Service Company has acquired 140 miles of pipeline for the transportation of natural gas between Hyner, Clinton County, and Millway Junction near Lancaster, Pa., from the Trans-Penn Transit Company. Acquisition by Scranton-Spring Brook of the pipeline is the result of a purchase agreement entered into in 1954 when Scranton-Spring Brook leased a part of the line to transport natural gas to its Susquehanna gas divisions in and around Williamsport, Sunbury, Milton, Bloomsburg and Danville. The purchase price was reported to be \$600,000.

Offer new home data

A RECENT ANALYSIS has provided detailed information concerning new home construction during 1955 and 1954 in 51 leading metropolitan areas throughout the nation. For each area the new housing total has been related to population to indicate the relative standing on the basis of new homes per thousand people. A detailed analysis may be obtained upon request from the A. G. A. Bureau of Statistics.

Utility association men attend safety course



S. L. Nemeyer, president of Milwaukee Gas Light Co., welcomes members of the Wisconsin Utilities Association to the 13th "Accident Prevention Through Informed Supervision" course presented in cooperation with A. G. A. Superintendents, supervisors, and foremen of seven companies were present

Australian gas man on U.S. inspection tour



Surveying latest in gas ranges is John Logan. He is with F. M. Foster (l.) of Southern California Gas, and F. N. Seitz (r.) of Southern Counties Gas

DURING AN INTERVIEW in Los Angeles, where he spent the last days of a lengthy round-the-world inspection tour of the gas industry, John Logan, general sales manager of the Australian Gas Light Company of Sydney, told of the struggles of Australian gas companies in competing with tax-supported, state-owned electric utilities.

In spite of obstacles, the gas industry in Australia is growing against all opposition. Australians must rely, of course, on manufactured gas, Mr. Logan said, since no reserves of natural gas have as yet been found. The search for natural gas, however, is carried on "relentlessly and hopefully," he added.

One of the reasons for Mr. Logan's tour of American gas companies is to determine which of the new automatic features are most immediately adaptable to his company's market conditions.

Mr. Logan pointed out that the A. G. A. Old Stove Round-Up idea had been of great promotional assistance to the Australian industry. His own company, he said, adopted the promotion three years ago and, in its first year, succeeded in replacing 15,000 obsolete ranges.

In his travels, he found that "All the world over, people who cook for a living use gas."

AMA seminar set

THE Public Utility Marketing Committee of the American Marketing Association plans to hold another seminar to discuss marketing problems of gas, electric, and telephone utilities.

This conference, similar to one held in Chicago last April, will be held in Dallas on Jan. 24.

It will be aimed at utility companies in the South and Southwest. Invitations and further details will soon be sent to companies in these areas.

Gas-burning engines

NATURAL GAS-BURNING engines to power central air conditioning equipment are being offered to the market by Le Roi Division, Westinghouse Air Brake Co., Milwaukee, after two years of tests. They are designed to provide low-cost air conditioning of 75-ton to 500-ton units. Engines range in size from 75 to 500 horsepower, and can be purchased in multiple units. The natural gas-burning engines are said to be able to save up to 50 per cent in operating costs as compared to electric motors.

Manufacturers announce new products and promotions

PRODUCTS

● Harper-Wyman has announced a new broiler valve with a built-in automatic safety pilot for gas ranges. Body of the unit is one-piece aluminum die casting machined to close tolerances. The new product has 100 per cent safety shut-off with full control on the front of the range. Valve locks in "off" position for extra safety. It is available with or without the Hi-Low valve and 100 per cent shut-off feature, and as an interrupter or non-interrupter type.

● A new high input automatic storage gas water heater with a 16-gallon aluminum tank is now marketed by Ruud. The small dimensions, 33 3/8 inches high and 26 1/2 inches wide, make it suitable for under-the-counter or wall-mounted installation in commercial establishments. The new Ruud Sanimaster AS 20-80 has A. G. A. Laboratories' approval on its 95,200 Btu input on all gases. It is A. G. A. approved as an instantaneous water heater and as a circulating tank water heater. The water heater has a recovery rating of 80 gallons per hour through a 100 degree temperature rise.

● A new thermostatic control designed for installation in the cold air return of gas-fired wall and room heaters is now in production by Robertshaw-Fulton Controls. Designated the Unitrol 110-S, the control includes a combination pilot and main burner control valve, an automatic pilot with the 100 per cent shut-off feature, and a highly sensitive thermostat mechanism. Robertshaw-Fulton also announces a new automatic gas heating control for use with warm air furnaces, the Unitrol Model 400E. It combines gas cock, thermostatic valve, and automatic pilot in a single unit. The control's thermostatic valve operates (on the heat motor principle) on 24 volts AC, and is suitable for use with all types of room thermostats. It has snap-action gas valve for posi-

tive and silent performance, and an automatic pilot with 100 per cent shut-off. All adjustments are accessible from the front.

● Rheem's plumbing and heating division is introducing a new counterflow furnace which conserves about 13 inches of vertical space as compared with the previous counterflow design. It will be available in 5 sizes ranging in input from 80,000 to 160,000 Btu per hour.

● Three new welded steelcase meters of advance design will be introduced by American Meter in coming weeks, and a fourth meter will be introduced some time later. All the meters are rated with 0.64 specific gravity gas at one half inch pressure drop and five pounds per square inch rated working pressure. The steelcase meters, lighter than "hardcase" types, feature an external index box; removable hand-hole for easy access to tangent; molded Duramic diaphragms and reinforced flag rods designed to give trouble-free service. The company utilizes a new type of weather and corrosion resistant coating for protection on all normal outdoor sets. For highly corrosive atmospheres a special coating will be supplied at slight additional cost.

● Patrol Valve Co., Cleveland, is making a new "80" series of automatic temperature and pressure relief valves for domestic water heaters. Valves operate automatically for both temperature and pressure. They are available in six distinct models, with or without test levers, extension tubes, and the exclusive "Adjust-Tab" which permit pressure readjustment in the field.

● Synchronous Flame, Inc., of Walworth, Wis., has recently achieved successful applications of its small Syncro/Flame power gas burners in the new compact warm air furnaces designed for installation in ceilings, pits, closets, or walls of modern dwelling units and

small commercial buildings. The models come in three sizes, ranging from 75,000 to 400,000 Btu per hour. Accurate and positive adjustments are provided for correct air-fuel ratio to produce a clean flame. Since air supply is controlled by a motor-driven fan, problems of natural draft and back pressure are greatly reduced and permit the use of very short stacks when desired.

PROMOTIONS

● Surface Combustion Corp., Toledo, Ohio, has published a new issue of *Heat Treat Review*, featuring articles on basic principles of quality gas carburizing, low-cost dew point control, and annealing and age hardening of copper alloy coils.

● A recently published four-page folder on cathodic protection cables—gencathene and aquathene—is available from the General Cable Corporation in New York City.

● A bulletin describing a line of multiple jet rectangular gas conversion burners ranging from 50,000 to 2,100,000 Btu per hour is offered by the Barber Manufacturing Co., Cleveland. The bulletin lists the specifications, dimension, approximate shipping weights, and unique features of the various models of Barber burners.

● Available from Robertshaw-Fulton are new bulletins on the company's Temp-Okay gas oven control (Model BJ-S) and its Incinitorol gas incinerator control (Model ED). The gas oven control described in Bulletin RT-780 is a combination gas cock and oven thermostat equipped with two mechanically operated switches that control indicating lights. The incinerator control described in Bulletin RT-748 is a combination gas cock, automatic pilot, and four-hour timer for use on automatic gas-fired incinerators.

Peoples seeks to buy more shares in its exploration subsidiary

THE Peoples Gas Light and Coke Co., Chicago, is aiming to purchase additional stock in its subsidiary, Peoples Production Co., which is engaged in a development and exploration drilling program seeking natural gas and oil in submerged lands lying off the coast of Louisiana and Texas.

The utility has filed with the Illinois Commerce Commission petitions requesting authority to purchase up to \$10 million of addi-

tional common stock in Peoples Production; and to enter into a \$15 million bank loan agreement to provide the necessary funds for the purchase and to meet other needs of the utility or its subsidiaries.

The exploration company, one of a four-company group, began its off-shore program in April 1954. Since then expenditures by the group (which includes Sinclair Oil and Gas Co., Sohio Petroleum Co., and El Paso Natural

Gas Co.) have totaled over \$34 million. Last June the group announced a major discovery with the completion of drilling of the first well on Block 175 in the Eugene Island area, 43 miles from the Louisiana shore. In its petition, Peoples Gas said that on the basis of information currently available, it is believed that the value of the total production obtainable from Block 175 will exceed the present investment by the group in the entire venture.

East Ohio co-sponsors air-conditioned housing development

ONE OF THE largest single installations of residential gas air conditioning in the country has been made in a development of 101 all-gas homes in Columbus, Ohio. The cost of air conditioning is included in the purchase price of the speculative homes which range in price from \$20,000 to \$32,000.

Cooperating with the five builders as co-sponsor of the project is The Ohio Fuel Gas Co., a part of the Columbia Gas System. The natural gas utility is using its information and promotion facilities to conduct an extensive

campaign in the Columbus area to acquaint people with the new all-gas homes.

The first group of homes in the development was opened for inspection on October 21, for a two-week showing period. There are 28 basic floor plans and exteriors in the new development, and all homes will be fully equipped with gas appliances, including Roper sectional gas ranges, Servel all-year air conditioning, Servel gas refrigerators, Rex automatic gas water heaters, Maytag washers and gas dryers.

Previous to the opening of the model homes, The Ohio Fuel Gas Company sponsored an open house for the press, followed by one for all the suppliers involved in the housing development.

Members of the gas company escorted people through the houses, demonstrated the appliances and pointed out other unusual features. To supplement the personal tour, each house was equipped with a pre-recorded tape message describing special features of the house to visitors.

Permaglas adds photography contest to sales campaign

A NEW TWIST in the Permaglas "Confidence" sales campaign now in full force is the "Confidence" photo contest now being launched by this division of A. O. Smith Corp., Kankakee, Illinois.

The contest is designed to attract the attention of both the general public and the 30

million U. S. photographers using still cameras to whom a dependable source of hot water in their darkrooms is so important.

Each photo submitted in the contest must portray the "Confidence" theme. Suggested subject matter is the confidence a child shows in his parents, a man in his future, or some-

one in the heating and plumbing industry in a job well done.

The contest will continue through Jan. 15. The first and second prizes are \$1,000 and \$500 respectively. The next eight prizes are a 30-gallon deluxe Permaglas water heater installed free of charge.

Teachers 'go to school' at Worcester Gas Light Company

WORCESTER Gas Light Company shared the spotlight with 52 other business and industrial concerns on Oct. 17, when over 600 school teachers and administrators from seventeen adjacent communities paid visits to their plants on Worcester's first "Business, Industry, Education Day."

The teachers' day began with an orientation and coffee hour at nine a.m. at Worcester Polytechnic Institute, following which chartered buses took the teachers to the various plant locations.

James J. Flanagan, assistant treasurer for Worcester Gas Light Co., briefed the teachers on the operation of the gas utility company, following which they were divided into smaller groups and taken on a tour of both the administrative and operational parts of the plant. Each group was conducted to the commercial office, the customer location center, the distribution department and the utilization department and they were shown the meter proving shop and the telemetering section of the plant.

Bob Widdis, assistant personnel supervisor and NEGEA news editor arranged the program for the visitors.

No questions from the learned audience "stumped" the Worcester Gas Company "experts" and none were surprising—all gave the impression that they were the "average" customers, that they were seeing the "other end" of the pipeline for the first time, and that they were amazed at the complexity of the operation and the painstaking efforts made

day in and day out to provide them with a perfect utility product.

The participants were administrators,

teachers and other faculty members at all levels of the public schools in the communities adjacent to Worcester.



John J. Molloy, public relations specialist for the New England Gas and Electric System, poses the group of teachers visiting Worcester Gas Light Company in front of the company's No. 1 holder

Home service directors meet in Chicago



Attending the Chicago Home Service Committee meeting on Oct. 30 were (l. to r.): seated—Mildred Clark, Lucy Slagle, Irene Muntz, Chairman Marjorie Chandler, Mildred Endner, Laura Piepgras, and Eleanor Wiese; standing—Ruth Soule, Marjorie Bettesworth, Evelyn Winkes, Betty Ann Morgan, Mildred Farrell, Jessie McQueen, Flora Dowler, Janet Lappin, Dorothy O'Meara, and Constance Crawford. Committee projects for the coming year will include sponsorship of the annual Home Service Workshop in Toronto, Feb. 4-6, and revision of the home service training booklet entitled "Home Calls"

Use quarterly billing

COMPANIES interested in reducing customer billing costs will be interested to learn that England's South Eastern Gas Board has been billing domestic customers quarterly for the past 15 years, with highly satisfactory results. The utility reports that there does not seem to be a significant rise in the proportion of high bill complaints as the amount of the bill rises. As a matter of fact telephone bills in the same area, generally for much higher amounts than gas bills, are rendered semi-annually.

Attract 26,000

IN THE four weeks that it was open to the public, the all-gas WRC-TV "House that Home Built" attracted over 26,000 visitors. The nine-room split-level house in Landon Village, Md., set a new high in the area for number of visitors. It was completely gas equipped, with latest gas appliances courtesy of the Washington Gas Light Co., Washington, D. C. Gas heating and cooling were by American Standard. "The House that Home Built" was opened on Sept. 21, following a special pick-up on the NBC-TV network.

Columbia Gas, Commercial Solvents, study petrochemical project

GEORGE S. YOUNG, president of The Columbia Gas System, Inc., and J. Albert Woods, president of Commercial Solvents Corp., have announced an agreement between the two companies to proceed with engineering and economic studies of a proposed joint project to produce petrochemicals.

The \$40-\$50 million project, which would be located in the Ohio Valley area, has been

under investigation during recent months jointly by the two companies. Tentative plans call for the commencement of construction in early 1957 after necessary regulatory authorizations have been obtained.

The long-range plans for the project provide for the formation of a jointly owned company and recognize the possibility that the new company may ultimately be engaged in

the entire field of ethylene and other hydrocarbon derivatives.

The project is based on the utilization of hydrocarbons to be extracted from the substantial reserves of natural gas owned or controlled by Columbia Gas in the Appalachian area and will draw upon the technological and chemical marketing experience of Commercial Solvents.

Hold ground-breaking ceremonies for Northern Illinois meter shop

GROUND-BREAKING ceremonies for Northern Illinois Gas Company's new meter shop in LaGrange on Aug. 23 brought out numerous civic officials as well as officials from the utility. An estimated 100,000 gas meters will be tested and repaired annually in the new shop.

Edward D. Sheehan, vice-president of the utility, told the gathering that more than

600,000 gas meters are needed in the company's present activities and that new, modern testing and repairing facilities were necessary. LaGrange, Ill., was selected as the location for the shop partly because it is the approximate center of population in the utility's service area.

"In order to produce a meter shop unexcelled anywhere in the country," said Shee-

han, "we chose a well-established firm of consulting engineers to work with us in designing the layout. The shop will employ the latest and most modern methods used in the industry today."

The new 20,000 square foot building, expected to be completed next year, will be completely air conditioned with gas during the summer.

Plan Financial Forum

PRELIMINARY PLANS have been made to conduct another Financial Forum for gas utility executives and prominent members of the financial community. It will be held next fall in Chicago, under the sponsorship of the Committee on Gas Industry Finance and Economics. Similar past meetings, to which attendance is by invitation only, have been highly successful in facilitating off-the-record and free discussion of problems which affect both the gas utility and pipeline industry and the financial community. Plans for the next forum are being made by a subcommittee including Marvin Chandler of Northern Illinois Gas Co., George Hays of Laclede Gas Co., Robert Drevs of The Peoples Gas Light and Coke Co., and Paul Hallingby Jr. of Middle South Utilities.

Plan 4-point program

THE NEWLY FORMED Committee on Economics of the International Gas Union has announced a four-point program of action. The committee plans to:

1. Investigate the possibility of decreasing the cost of distribution by the use of new materials or methods of using traditional materials.
2. Prepare recommendations based on existing standards or codes of practice or requirements made obligatory by current legislation in the various countries represented.
3. Investigate the possibility of reducing the basic price of distribution by modification of the pressure or velocity of gas.
4. Study questions relating to the installation of services, risers, and meters, and other pertinent matters.

Revise questionnaire

A COMMITTEE of financial representatives has been established to work with the A. G. A. Subcommittee on Gas Industry Statistics and the EEI Statistical Committee to revise the questionnaire known as the Annual Statistical Report. This is filled in every year by gas and electric companies and copies are submitted to A. G. A., EEI, security analysts, and insurance companies. In this manner, one uniform report serves the purpose of all groups, resulting in a substantial paperwork reduction. The present form has been used for four years, and it seems likely that the financial representatives, to whom this report represents a valuable source of information in analyzing the operations of utility companies, will wish to introduce some modifications. In addition, industry representatives desire certain changes.

A. G. A. announces new publications

OPERATING

The following Operating Section convention papers are available from the Section at 25 cents a copy. A check list of 1956 Operating Section spring conference papers published after those listed in the June check list is also available from the Section.

- Meter Economy with Standardization, OS-56-1, by James Webb.
- The Operating Section Reports, OS-56-2 by J. H. Collins Sr.
- Gas Control and Operating Planning, OS-56-3, by Larry Shomaker.
- Where Does the Gas Industry Go From Here?—A Speculation as to the Long-Range Outlook, OS-56-4 by William B. Tippy. This paper is identical with CEP-56-28, presented at the 1956 Production Conference.

PROMOTION

- Automatic All the Way (for sales, promotion, and advertising managers). This new gas range booklet in the Big Ten series was sponsored by and is available from the A. G. A. Promotion Bureau. Copies cost three cents each.

RESEARCH

- A Theoretical Study of the Thermodynamic Relations Underlying the Absorption Refrigeration Cycle by Donald H. Andrews (for manufacturers of air conditioning equipment and air conditioning engineers). Available from A. G. A. Headquarters at \$5 a copy.

STATISTICS

- MR Briefs No. 4 (for sales managers and market research analysts). Sponsored by the Marketing Research Committee and available free of charge from the Bureau of Statistics.
- Monthly Bulletin of Utility Gas Sales, September (for gas companies and financial institutions). Sponsored by and available from the Bureau of Statistics; free.

PAR

- PAR Briefs, September-October (for gas company executives). Sponsored by the PAR Committee and available free of charge from A. G. A. Headquarters.

Suppliers gather



Greeting Burghers (gas utility men) for annual wassail of Gild of Ancient Suppliers are Mayor W. G. Hamilton Jr., Warden C. E. Rainsbury, and Master-of-Revels A. M. Stock. Some 300 Suppliers and Burghers gathered at Atlantic City's Hotel Madison during A. G. A. convention

University of Illinois publishes study on water heating

THE American Gas Association announces the publication of *Investigation of the Performance of Automatic Storage-Type Gas and Electric Domestic Water Heaters*, by Eugene F. Hebrank, professor of mechanical engineering at the University of Illinois.

This bulletin, issued as University of Illinois Engineering Experiment Station Bulletin No. 436, covers several years of work carried out under the supervision of the A. G. A. Committee on Comparison of Competitive Services.

Significant findings are reported on two

topics of vital interest to every gas company and to home builders. The first and perhaps the most important deals with the two-hour deliverability of contemporary models of gas and electric water heaters. These deliverability quantities permit evaluation of the proper size water heater for local promotion on the basis that adequate hot water service must be capable of furnishing at least three full washer cycles plus other household needs in two hours and still leave enough hot water available after that time.

From a competitive viewpoint this same data shows that either very large or very high input electric water heaters would be required to match the performance of gas.

The second topic of interest in these studies is the new series of comparative fuel and energy usage data. Appropriate tables and charts are given showing what this means in terms of monthly bills for gas or electricity. The bulletin is available at 60 cents a copy from the Headquarters of the American Gas Association.

Robertshaw launches promotion program for range salesmen

A SERIES of demonstration programs aimed at familiarizing retail appliance dealers with the advantages of top burner temperature controls on cooking ranges is being sponsored by Robertshaw-Fulton Controls Company.

More than 150 appliance dealers with their salesmen and the salesmen's wives, attended the initial two meetings, conducted by a touring Robertshaw demonstration group in Kansas City, Missouri. The group also presented demonstrations in St. Joseph and Joplin, Mo., and Topeka and Wichita, Kansas.

In each city the retailers, with the salesmen and their wives, saw a complete dinner—from hors d'oeuvres to chocolate cake and coffee—prepared on range-top cooking units equipped with automatic heat controls.

The dealer meetings were held under the auspices of The Gas Service Co., Kansas City, Mo., which serves more than 1,600,000 people in Missouri, Kansas, Oklahoma and Nebraska.

Miss Rhea Shields, Robertshaw-Fulton home economics director, demonstrated that it is virtually impossible to burn or overcook food on top burners equipped with the new control.

Dishes prepared by Miss Shields were placed on the range and left unattended until ready to serve. The control, she said, "relieves women from being nursemaid to a stew kettle."



Rhea Shields, Robertshaw-Fulton home economics director, explains automatic top burner heat control to F. M. Rosenkrans (l.), general sales manager, and C. C. Young, sales promotion manager, both of Gas Service Company. Miss Shea gave demonstration program for range dealers, salesmen

Gas industry reduces motor accident rate by 14 per cent

GAS DISTRIBUTION and transmission companies reduced their motor transportation accident rate by 14 per cent during the past year. American Gas Association reported this in announcing 15 awards won by the industry in the 25th annual National Fleet Safety Contest conducted by the National Safety Council. This 14 per cent reduction was one of the best achievements in the contest's truck division, which had an over-all accident rate 26 per cent higher than for the previous 12 months.

An accident frequency rate of only 1.58 per 100,000 miles of operation was credited to gas industry contestants with total operations of 291 million miles between July 1955, and June 1956. The rate for 1954-55 was 1.84.

The first place awards were presented for each division of the contest at ceremonies in Chicago's La Salle Hotel on Oct. 25.

Award winners in the gas industry division competition sponsored by the American Gas Association were the following.

Gas utility (Very Large Group)—1. Columbia Gas System, Inc. (Pittsburgh Group); 2. Columbia Gas System, Inc. (Columbus Group); 3. Milwaukee Gas Light Co., Milwaukee, Wisconsin. (Large Group)—1. Pioneer Natural Gas Co., Amarillo, Texas; 2. Kentucky West Virginia Gas Co., Ashland, Ky.; 3. Houston Natural Gas Co., Houston, Texas. (Medium Group)—1. Wisconsin Power and Light Co., Madison, Wis.; 2. Godfrey L. Cabot, Inc., Appalachian Division; 3. Gas Division, Water, Gas and Sewage Treatment



R. H. Spikes (l.), Pioneer Natural, shows the award won second year in a row as first place winner in large company category. Representing first place winner in very large company category—Columbia Gas System Pittsburgh group—is R. H. Kelliher, Manufacturers Light & Heat

Department, Duluth, Minnesota. (Small Group)—1. Concord Natural Gas Corp., Concord, N. H.; 2. Elizabeth & Suburban Gas Co., Elizabeth City, N. C.; 3. The River Gas Co., Marietta, Ohio.



E. G. Cox (r.) of the Interstate Commerce Commission congratulates Everett Ravin, safety director of Wisconsin Power and Light, which won the medium-sized gas company competition for the second consecutive year with a frequency rate of .13 per 100,000 vehicular miles

Gas transmission system group—1. Alabama-Tennessee Natural Gas Co., Florence, Ala.; 2. Lone Star Gas Co., Transmission Division; 3. Southern Natural Gas Co., Birmingham, Alabama.

Highlights of cases before Federal Power Commission

Bureau of Statistics, American Gas Association

Certificate cases

● **El Paso Natural Gas Company:** The FPC granted company temporary authorization to construct 23 miles of pipeline from the South Andrews field booster station to a Shell Oil Company gasoline plant. In a previous authorization, El Paso was permitted to construct and operate a gasoline plant to process 20 million cubic feet daily. El Paso reached an agreement whereby Shell will process the 20 million cubic feet per day. This cancels the need for a processing plant by El Paso and permits the additional gas to be used for existing customers.

● **Manufacturers Light and Heat Company:** The company was authorized by the FPC to continue operation of its 183 mile Clinton County line and its existing 2,640 horsepower Renovo compressor station and to construct a new compressor station with 1,760 horsepower rating near Jeanette, Pennsylvania. Included in the authorization is permission to lease and operate 109 miles of pipeline in McKean and Clinton Counties, owned by trustees of The Sixty Trust and formerly leased by Trans-Pen Transit Corp. These facilities will permit proposed annual sales to Scranton-Spring Brook Water Service, Lock Haven Gas, Jersey Shore Gas and Heating, Renovo Gas and

Fuel, and Clearfield Gas and Fuel amounting to 1,105 million cubic feet and unspecified amounts direct to industrial users along the Clinton line.

● **Ohio Fuel Gas Company:** Temporary authorization was granted by the FPC to install two additional 1,500 horsepower compressor units at a cost of \$850 thousand to its Crawford, Ohio, station, increasing capacity rating to 15,050 horsepower. In another action, the FPC authorized Ohio Fuel to abandon eight miles of line and to construct 19 miles of line replacing or looping existing facilities to serve the increased requirements of the markets in the Dayton and Toledo areas. Cost is estimated at \$772 thousand.

● **Texas Gas Transmission Corporation:** Company was granted temporary authority by the FPC to construct 13 miles of 20-inch pipeline extending from its East Lake Palourde Line in Assumption Parish, La., to the Thibodaux area of La Fourche Parish, La., at an estimated cost of \$1.5 million. These facilities will supply additional gas to existing customers.

● **Transcontinental Gas Pipe Line Corporation:** Temporary authority was granted Transcontinental by the FPC to operate 252

miles of pipeline in Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, Maryland and Pennsylvania, and an additional 12,750 horsepower in compressor capacity. These facilities, costing approximately \$38.5 million, are designed to make available 49 million cubic feet of gas daily to one new and 18 existing customers. This order limits deliveries to 1.6 million cubic feet daily for Piedmont Natural Gas and to 2.6 million cubic feet daily for Public Service Company of North Carolina in order to reserve gas for those distributors and communities which the commission may ultimately find in need of service from the authorized facilities. As originally proposed, Piedmont was to receive a daily allocation of five million cubic feet and Public Service Company of North Carolina another three million cubic feet. In addition, and as part of the over-all project, Transcontinental is proposing to construct another 99 miles of pipeline at a cost of \$12.4 million. The complete project is designed to add 126 million cubic feet daily to the company's delivery capacity.

Rate cases

● **Arkansas Louisiana Gas Company:** The FPC has suspended, pending hearing and decision, two proposed rate increases totaling

\$15,400 per year accruing to the company from sales of natural gas to Texas Eastern Transmission. Rates were to become effective Nov. 1, in order to effectuate periodic increases in contracts with Texas Eastern.

● **Manufacturers Light and Heat Company:** Increased rates to company's wholesale customers in New York, New Jersey, Maryland, Ohio, Pennsylvania and West Virginia were approved by the FPC. The higher rates, amounting to \$499 thousand annually, were suspended in June 1954, placed in effect November 1, 1954 and collected subject to refund. Company's plea was based in part on higher costs of gas purchased from its affiliates all of whom have proposed rate increases before the FPC.

In other actions, the FPC amended its original order allowing Pacific Northwest Pipeline Corporation to export to Canada 12 million cubic feet daily with the allocation of an additional 20 million cubic feet. This order is a stop-gap procedure and

covers the same interim period, or approximately one year from Nov. 1, 1956, when the facilities of the West Coast Transmission Company are expected to be completed. In the interim, gas is to be sold to West Coast at the Canadian border near Sumas, Wash., for delivery to British Columbia Electric Company.

Tennessee Gas Transmission Company received authorization to operate natural gas facilities during the 1956-57 heating season for which temporary authority to construct was granted last June 28. The temporary authorization covered construction of only 162 miles of main line pipe and 13,940 compressor horsepower costing an estimated \$20.3 million. The pipe, situated in Kentucky, Ohio, and Pennsylvania, and the additional compressor capacity, situated at stations in Massachusetts, Louisiana, Mississippi and Tennessee, are designed to increase deliveries to existing customers by a total maximum of 89 million cubic feet daily with provision for an additional 25.5 million cubic feet daily of peaking service.

INDEPENDENT GAS PRODUCER RATE FILINGS—OCTOBER 1956

	Number	Annual Amount
Tax rate increases allowed without suspension	19	\$ 12,871
Other rate increases allowed without suspension	71	224,218
Rate increases suspended	102	2,556,556
Total rate increases	192	2,793,645
Tax rate decreases allowed without suspension	432	491,399
Other rate decreases allowed without suspension	—	—
Total rate decreases	432	491,399
Total rate filings (all types)	739	
Total rate filings acted on from June 7, 1954 to October 31, 1956	18,416	
Rate increases disposed of after suspension (during October)	6	
Amount allowed	—	
Amount disallowed	—	
Amount withdrawn	—	
Rate increases suspended and pending as of Oct. 31, 1956	327	\$22,171,180

CGA sets Alberta reserves at 88 trillion cubic feet by 1980

ALBERTA'S total recoverable reserves of natural gas will amount to 88 trillion cubic feet by 1980, according to W. H. Dalton, general manager, The Canadian Gas Association, Toronto.

In addition to Alberta's gas fields, which are the greatest in the country, there are the known or potential fields in British Columbia and Saskatchewan, plus those in the Peace River district.

The Canadian gas industry is now under-

taking active construction projects to bring the gas to usable markets, Mr. Dalton states, adding that the Westcoast Transmission pipeline, which will extend from the Peace River district to Seattle, Wash., is now 50 per cent completed, and that the Trans-Canada pipeline should reach Winnipeg late in 1957.

"During the next five years, the Canadian gas industry will spend approximately \$1.5 billion on expansion of present facilities or construction of new projects to keep pace with

the rapidly increasing popularity of natural gas," he says.

A survey of western Canada's proved and recoverable natural gas reserves at the present time places the total at 22.5 trillion cubic feet. Of this total, Alberta accounts for 18.5 trillion cubic feet; British Columbia with 3.5 trillion cubic feet, and Saskatchewan with 500 billion cubic feet. The reserves build-up is progressing at a rapid rate, the survey indicated.

Midwest Industrial Gas Council hears speakers, visits IGT

OVER 100 industrial gas engineers attended the fall meeting of the Midwest Industrial Gas Council held at the LaSalle Hotel, Chicago, Oct. 26.

Council Chairman J. R. Woodfill, of the Northern Indiana Public Service Co., Hammond, Ind., presided and introduced V. C. Cole, product manager, absorption refrigeration equipment, and J. E. Salmon, Chicago branch manager, Carrier Corporation.

Using sound slides, the Carrier representatives gave an enlightening discussion on the use of gas as it applies to the absorption method of refrigeration and air conditioning. Their talk was entitled "Building Summer Loads with Absorption Refrigeration."

The next speaker was L. J. O'Reilly, Maxon Premix Burner Co., who also used slides to supplement his talk on "Firm Gas for Premium Industrial Gas Applications." The slides showed various industrial gas applications around the country with particular emphasis on drying. The members were urged to send for A. G. A. Information Letter No. 65 which lists 370 drying applications using gas.

After lunch the members left for a tour of the Institute of Gas Technology at the Illinois Institute of Technology where they were shown the modern facilities for gas research and development. Dr. Rex T. Ellington, assistant research director of the school, gave a

talk on the "Development and Evaluation of Research Proposals."

The next meeting of the council will be

held at the LaSalle Hotel, Chicago, in January, at which time the new officers for 1957 will be elected.



A brief chat is held before the Midwest Industrial Gas Council meeting by the group's chairman, J. R. Woodfill of NIPSCO (L.), and the secretary-treasurer, G. C. Lewis of Northern Illinois Gas

New A.G.A. members

Gas Companies

Manila Gas Corp., Manila, Philippines (Victor A. Lim, Vice Pres. & Gen. Mgr.)
Suffolk Gas Corp., Suffolk, Va. (Wilfred C. Gatling, Jr., Gen. Mgr.)

Manufacturer Companies

All American Fabricators, Los Angeles, Calif. (Donald O. Smith, Gen. Mgr.)
American Gas Journal, Inc., Dallas, Tex. (Dean Hale, Editor)
Bakers Pride Oven Co., Inc., New York, N. Y. (Ira Nevin, Pres.)
Barnes Heating Equipment Co., Inc., Long Beach, Calif. (John Hendrickson, Pres.)
Central D Manufacturing Co., Culver City, Calif. (J. Margolin, Partner & Gen. Mgr.)
Chilton Co., The, Los Angeles, Calif. (Frank M. Chapman, Publisher)
Ford Steel Products Corp., Tarrytown, N. Y. (W. B. Ford, Pres.)
Lynchburg Foundry Co., Lynchburg, Va. (Charles A. Glenn, Gen. Sales Mgr.)
Streamway Products, Inc., Cleveland, Ohio (F. Jerome McKeever, Pres.)
Talarico Reg'd., D., Montreal, Que., Can. (Joseph Talarico, Proprietor)
Western Gas Engineering & Equipment, Ltd., Vancouver, B. C., Can. (James M. Graham, Vice Pres.)

Individual Members

Herbert H. Abey, Philadelphia Gas Works Div., UGI Co., Philadelphia, Pa.
Wilmer K. Allebach, Public Service Electric & Gas Co., Newark, N. J.
Wallace E. Almquist, The Manufacturers Light & Heat Co., Pittsburgh, Pa.
Kenneth B. Anderson, The United Gas Improvement Co., Philadelphia, Pa.
Lawrence H. Armstrong, Montana-Dakota Utilities Co., Minneapolis, Minn.
Richard N. Benjamin, Stone & Webster Service Corp., New York, N. Y.
Homer H. Berry, Philadelphia Electric Co., Philadelphia, Pa.
Stanley W. Betts, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
Claude B. Board Jr., The East Ohio Gas Co., Cleveland, Ohio
James R. Boileau, Public Service Electric & Gas Co., Camden, N. J.
Albert W. Buckley, Roanoke Gas Co., Roanoke, Va.
Charles H. Cannon, Philadelphia Gas Works Div., UGI Co., Philadelphia, Pa.
J. T. Cardall, Southern California Gas Co., Los Angeles, Calif.
John E. Carlson, The Peoples Gas Light & Coke Co., Chicago, Ill.
Victor V. Caudy, Central Hudson Gas & Electric Corp., Newburgh, N. Y.
James Chaisson, Jr., Southern Cross Foresters, Atlanta, Ga.
Earl C. Chambers, Piedmont Natural Gas Co., Inc., Charlotte, N. C.
Keith A. Chen, Milwaukee Gas Light Co., Milwaukee, Wis.
Samuel H. Cheney, Niagara Mohawk Power

Corp., Schenectady, N. Y.
Paul Chenzoff, Philadelphia Electric Co., Philadelphia, Pa.
Mrs. Myrtle M. Clabby, The Connecticut Light & Power Co., Hartford, Conn.
Thomas H. Cleavenger, L. B. Foster Co., Chicago, Ill.
Thomas L. Cooke, The East Ohio Gas Co., Cleveland, Ohio
Alvin T. Coppage, Washington Gas Light Co., Washington, D. C.
Robert M. Crockett, Public Service Electric & Gas Co., Harrison, N. J.
Fred E. Culvern, Panhandle Eastern Pipe Line Co., Kansas City, Mo.
Frederic A. D'Anna, Public Service Electric & Gas Co., Jersey City, N. J.
George S. Daves, Public Service Electric & Gas Co., Paterson, N. J.
Orval C. Davis, Natural Gas Pipeline Co. of America, Chicago, Ill.
William C. Detwiler, Philadelphia Electric Co., West Conshohocken, Pa.
William H. Donnelly, Laclede Gas Co., St. Louis, Mo.
Edward F. Dorsey, Milwaukee Gas Light Co., Milwaukee, Wis.
John B. DuBois, Southern California Gas Co., Los Angeles, Calif.
Clark H. Duncan, Natural Gas Pipeline Co. of America, Chicago, Ill.
James S. Entringer, A. O. Smith Corp., Milwaukee, Wis.
Frederick B. Esterly Jr., Consumers Power Co., Jackson, Mich.
Mrs. C. F. Fearon, City Gas Co. of New Jersey, Flemington, N. J.
Edwin J. Ferguson, Equitable Gas Co., Pittsburgh, Pa.
Edward C. Fleischli, Central Illinois Light Co., Springfield, Ill.
E. M. Foudray, Columbia-Geneva Steel Div., U. S. Steel Corp., Portland, Ore.
Joseph S. Frink, Florida Power & Light Co., Miami, Fla.
B. B. Gibbs, United Gas Corp., Shreveport, La.
Thaddeus E. Gieruszczak, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
Myron B. Golber, Armour & Co., Engineering Div., Chicago, Ill.
Ralph E. Grimm, Iroquois Gas Corp., Buffalo, N. Y.
William G. Grove, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
Norman V. Grund, The Cleveland Trencher Co., Cleveland, Ohio
Robert F. Hamilton, Hamilton & Voeller, Pocatello, Idaho
J. Kenneth Harper, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
Benjamin F. Harris Jr., Baltimore Gas & Electric Co., Baltimore, Md.
Tom C. Heard, General Electric Co., Schenectady, N. Y.
Howard Hoffman Jr., Public Service Electric & Gas Co., Jersey City, N. J.
Albert A. Hutton, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
Marshall Hyde, Port Huron, Mich.
Robert A. Johnson, Rockwell Manufacturing Co., New York, N. Y.

Turn-on ceremonies held at Red Deer



Alberta's Premier E. C. Manning turns gas into new transmission line built by Canadian Western Natural Gas Co., Ltd. Turn-on ceremonies marked the arrival of gas this fall to nine additional communities in the province. At Red Deer, site of the ceremonies, the new line interconnects with Northwestern Utilities Ltd.'s system. This utility is temporarily supplying gas for the line

Allan Johnston, United Gas Pipe Line Co., Shreveport, La.
 Hogen J. Kallemeyn, Pacific Gas & Electric Co., San Francisco, Calif.
 Howard C. Kellogg, Metropolitan Utilities District, Omaha, Neb.
 J. Richard Kelso, Hope Natural Gas Co., Clarksburg, W. Va.
 John L. Kennedy, Rochester Gas & Electric Corp., Rochester, N. Y.
 Cecil J. Kent, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
 David J. Kerr, Southern Union Gas Co., Dallas, Texas
 Asadullah Khan, Sui Gas Transmission Co., Ltd., Karachi, Pakistan
 Glenn A. Kirk, Northern Illinois Gas Co., Bellwood, Ill.
 Raymond F. Klein, Walworth Co., Harrison, N. J.
 George A. Leonard, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
 Clifford Leslie, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
 Grover C. Lewis, Northern Illinois Gas Co., Bellwood, Ill.
 Donald H. Locke, Standard Electric Time Co., Springfield, Mass.
 P. G. Matthews, United Gas Pipe Line Co., Beaumont, Texas
 William R. Matthews, Niagara Mohawk Power Corp., Syracuse, N. Y.
 John A. Matousek, The Baker-Raulang Co., Cleveland, Ohio
 James W. McAmis, Washington Gas Light Co., Washington, D. C.
 B. W. McElroy, The Peoples Gas Light & Coke Co., Chicago, Ill.
 S. Merzanis, Delta P. M. Painting, Jackson Heights, N. Y.
 Richard E. Miller, Rockwell Manufacturing Co., New York, N. Y.
 Franklin J. Morrison, The Ohio Fuel Gas Co., Zanesville, Ohio
 John C. Morrissey, Pacific Gas & Electric Co., San Francisco, Calif.
 Edgar F. Muller Jr., Baltimore Gas & Electric Co., Baltimore, Md.
 James F. Murray, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
 Leicester O. Needham, Philadelphia Gas Works Div., UGI Co., Philadelphia, Pa.
 Charles Nodder, Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
 George H. R. O'Donnell Jr., The Sprague Meter Co., Bridgeport, Conn.
 Samuel M. Page, Milwaukee Gas Light Co., Milwaukee, Wis.
 Francis W. Poebel, Central Illinois Light Co., Peoria, Ill.
 Norman R. Politte, Missouri Natural Gas Co., Farmington, Mo.
 H. B. Pollock, Oronite Chemical Co., San Francisco, Calif.
 John N. Porter Sr., The Gas Service Co., Kansas City, Mo.
 C. J. Power, United Gas Pipe Line Co., Jackson, Miss.
 E. L. Rawlins, United Gas Corp., Shreveport, La.
 William F. Redd Jr., United Fuel Gas Co., Charleston, W. Va.

Lone Star displays kitchens at state fair



The inviting kitchen shown above was seen by about 200,000 people during the Texas state fair. Fruitwood, stainless steel, pegboard ceiling, soft lighting, and modern gas appliances are gracefully combined and placed for maximum efficiency. This kitchen was part of Lone Star Gas Company's parade of six beautiful kitchens in the Natural Gas Exhibit Building in Dallas. Lone Star also had an outstanding display of 28 free-standing ranges in the General Exhibits Building

Paul C. Reichle, Laclede Gas Co., St. Louis, Mo.
 William G. Renz, Long Island Lighting Co., Glenwood Landing, N. Y.
 Albert H. Reschke, New York State Natural Gas Corp., Pittsburgh, Pa.
 Kenneth W. Robertson, Illinois Power Co., Decatur, Ill.
 J. P. Robins, United Gas Corp., Shreveport, La.
 William T. Robinson, Public Service Electric & Gas Co., Jersey City, N. J.
 Malcolm R. Rodger, Middle West Service Co., Chicago, Ill.
 William F. Rooney, Ebasco Services, Inc., Portland, Ore.
 Leland B. Roth, Columbia Gas System Service Corp., New York, N. Y.
 Charles M. Rutter, Equitable Gas Co., Pittsburgh, Pa.
 Donald E. Ryan, Washington Gas Light Co., Washington, D. C.
 Arthur L. Schlanger, Winnipeg & Central Gas Co., Winnipeg, Man., Can.
 Theodore C. Schroeder, Union Switch & Signal Div., W.A.B. Co., Pittsburgh, Pa.
 J. T. Scopes, United Gas Corp., Shreveport, La.
 C. B. Searle, United Gas Corp., Shreveport, La.
 John W. Selph, Eastern Gas & Fuel Associates, Boston, Mass.
 Richard J. Shipway, Northern States Power Co., Minneapolis, Minn.
 James C. Simandl, Northern States Power Co., Minneapolis, Minn.
 Murray K. Simkins, Chilton Co., Philadelphia, Pa.
 Donald J. Simpson, The Consumers' Gas Co. of Toronto, Toronto, Ont., Can.
 Edmund F. Sipp, The Peoples Gas Light & Coke Co., Chicago, Ill.
 E. M. Smith, United Gas Pipe Line Co., Houston, Texas
 Charles S. Spencer, Michigan Consolidated Gas Co., Detroit, Mich.
 John L. Stafford, City of Albany Utilities Commission, Albany, Ga.
 Dean B. Thomas, Washington Gas Light Co., Washington, D. C.
 Gerald H. Thornburg, Indiana Gas & Water Co. Inc., Rushville, Ind.
 James A. Thorpe, The Lake Shore Gas Co., Ashtabula, Ohio
 James Q. Thrasher, Hill & Knowlton, Inc., New York, N. Y.
 Clyde E. Titus, Northern Indiana Public Service Co., Hammond, Ind.
 Bernard C. Trueschler, Baltimore Gas & Electric Co., Baltimore, Md.
 Carl J. Voeller, Hamilton & Voeller, Pocatello, Idaho
 Elwood R. Volpe, Public Service Electric & Gas Co., Nixon, N. J.
 Owen R. Wagner, Milwaukee Gas Light Co., Milwaukee, Wis.
 W. P. Waller, Kansas Nebraska Natural Gas Co., Inc., Hastings, Neb.
 Albert K. Wellman, South Jersey Gas Co., Atlantic City, N. J.
 Harold L. Wilkins, Empire Gas & Fuel Co., Ltd., Wellsville, N. Y.
 T. C. Wilmoth, United Gas Pipe Line Co., Iowa, La.
 W. E. Wilson, United Gas Corp., Shreveport, La.
 Harold W. Woodhead, Springfield Gas Light Co., Springfield, Mass.
 Herbert T. Young, Peoples Water & Gas Co., North Miami, Fla.

Washington Natural fills top posts; Charles Sturkey named president



C. M. Sturkey

manager of the former Seattle Gas Company.

CHARLES M. STURKEY, formerly executive vice-president and general manager of Washington Natural Gas Co., Seattle, was elected president. He fills the vacancy created by the death of Walter S. Byrne. Mr. Sturkey first joined the company in 1943 as vice-president and general

In November 1955 he became executive vice-president and general manager of Washington Natural.

Bernard T. Poor has been moved up to Mr. Sturkey's former position, and will start his new duties on Jan. 1. Previous to last year's merger, he was vice-president of the former Washington Gas and Electric Company of Tacoma. After the merger, he was elected vice-president of the Washington Natural Gas Company and southern division manager.

Leland E. Jones, formerly northern division manager and rate engineer, was elected vice-president and will succeed Mr. Poor as southern division manager. He will also continue in

charge of rates. Mr. Jones joined the company as production superintendent for Seattle Gas in 1942. The position of northern division manager has been abolished.

New vice-president in charge of operations is James F. Gary, previously superintendent of engineering and construction. His new duties will be policy determination and administration on company distribution, engineering, and gas supply operations. Mr. Gary joined the old Seattle Gas Company as a cadet engineer.

Elected chairman of the board's Executive Committee is Charles D. Saunders, executive vice-president of the Seattle—First National Bank.

Stewart Matthews resigns as Cascade president; C. S. Clark succeeds

CSPENCER CLARK, Seattle industrialist and financier, has been named president of Cascade Natural Gas Corporation following the resignation of Stewart Matthews. Both men have been pioneers in the natural gas industry in the Pacific Northwest.

Mr. Matthews, who has served as president of Cascade since its formation in 1953, tendered his resignation because of extended illness. He will remain as a member of the board

of directors and serve in a consulting capacity.

Entering the gas business in 1939, Mr. Matthews served as president of the Bellingham, Wenatchee and Bremerton gas companies between 1939 and 1952. He currently is president of Northern Liquefied Gas Co., Inc. Matthews has been a leader in the long and finally successful struggle to bring natural gas to the Pacific Northwest. Both Mr. Clark and Mr. Matthews were members of the original Cas-

cade board of directors.

Mr. Clark has served as chairman of the Cascade Natural Gas board of directors since 1953. He has degrees in chemical engineering from the University of Washington and in business administration from Harvard Business School. He is chairman of the board of the Midland Coal and Lumber Co., and a director of Northern Ontario Natural Gas Co., Ltd., and Magna Pipelines, Ltd.

Personal
and
otherwise

Elect Coons

CLIFFORD V. COONS has been elected executive vice-president and vice-chairman of the executive committee of Rheem Manufacturing Company. Mr. Coons has been a vice-president of Rheem since 1948 and a director since 1950. He joined the company in 1934 in its Richmond, Calif., office. Mr. Coons is first vice-president of the Gas Appliance Manufacturers Association and a vice-president and director of the Steel Shipping Container Institute. He is a company delegate to the American Gas Association, and a member of the National Association of Manufacturers.

Price director

OTTO PRICE, vice-president of the Boston Gas Company since 1942, was recently elected a director of the company. Mr. Price has been an employee in the gas industry since 1913, and an employee of Boston Gas since 1925. He has served on various committees of the American Gas Association, and is currently treasurer of the New England Gas Association. The company also announces that Charles R. Davis has joined the staff as special assistant to the president. For the past 12 years he has been a gas consultant with Ebasco Services, Inc.

Three men earn certificate for completion of gas practice course

THREE GAS INDUSTRY men have recently earned the American Gas Association Certificate for completion of the correspondence course in American gas practice conducted by Prof. Jerome J. Morgan under the auspices of A. G. A.

Prof. Morgan, a consulting chemical engineer from Maplewood, N. J., is author and

publisher of the book *American Gas Practice*, an edition in two volumes.

Those who completed the course are Charles H. Wright Jr., Colonia, N. J.; Robert H. Sparrow, Bergenfield, N. J.; and Harold Edward Hedenburg of Hampton, Virginia.

Mr. Wright completed both Part I and Part II of the course within a short period of time.

He is a graduate of the Newark College of Engineering and is employed as cadet engineer by Public Service Electric and Gas Company.

Mr. Sparrow, a draftsman with the same company, completed Part II of the course, as did Mr. Hedenburg, a street foreman with Virginia Electric and Power Company at the time of his enrollment.

Michigan Consolidated names Rudman, Marion, and Maccardini

MICHIGAN CONSOLIDATED Gas Company has announced that because of the tremendous growth of its operations in central and western Michigan it is establishing a new organization for its northern districts with headquarters in Mt. Pleasant.

Francis M. Rudman is the new general manager of the northern districts effective Nov. 19. He will have over-all supervision of all gas distribution and sales operations in Big Rapids, Cadillac, Greenville, Belding, Ludington, Traverse City, Mt. Pleasant and a number of other nearby communities.

At present, both the northern and production and pipeline districts have their headquarters in Grand Rapids under General Manager James E. Spindle. Mr. Spindle will continue as general manager of the pipeline district.

William J. Marion was named sales manager of the northern districts and Reno Maccardini was appointed engineer. Mr. Rudman and Mr. Marion are from the company's Detroit district and Mr. Maccardini is from Grand Rapids.

There were no changes in the management

of the individual districts which make up the northern districts.

"The tremendous growth in central and western Michigan and the extension of natural gas service to many additional communities have made it necessary to separate the management of these two important districts," President Hugh C. Daly said.

"We believe the location of the northern district headquarters within the immediate service area enables the company to continue to expand its facilities to meet the needs of its customers."

Elect Harry Hancock president, Kirby Crenshaw executive vice-president

ELECTION OF Harry D. Hancock for many years a leader of the natural gas industry, as president of Cities Service Gas Company has been announced.

Mr. Hancock succeeds Glenn W. Clark, who recently resigned to accept the presidency of Mississippi River Fuel Corporation. The board of directors also created the new post of executive vice-president, to which Kirby E. Crenshaw was elected. Both Mr. Hancock and Mr. Crenshaw assumed their new offices on Nov. 15.

Mr. Hancock, formerly manager of the natural gas department of Cities Service Petroleum Inc., with headquarters in New York, is widely known for his many contributions

toward the growth of the natural gas industry and especially for his work related to the development of high-pressure, large-diameter pipelines for long-distance transportation of natural gas.

He was the recipient of the American Gas Association Distinguished Service Award in 1947 and its Award of Merit in 1953. He is the author of numerous technical treatises on natural gas production and transmission.

Mr. Crenshaw began his career with Cities Service in 1930 at Bartlesville, Okla., as a junior engineer, and served in various capacities with Cities Service gas interests in Kansas, Texas, and Oklahoma. In 1940, he was assigned to New York as an engineer for Gas



H. D. Hancock
Advisers, Inc., becoming vice-president of that Cities Service subsidiary in 1947.



K. E. Crenshaw

Wilson and Walker gain top posts at CGA's new approvals division

THE Canadian Gas Association has announced the appointment of Norman E. Wilson as chief engineer and Andrew C. Walker as office manager of its approvals division.

Mr. Wilson, a graduate in arts and engineering from the University of British Columbia, will be in charge of all technical matters in connection with the recently established gas appliance and equipment approval program being undertaken by CGA. Prior to his

new appointment, Mr. Wilson was in charge of the fire prevention division, Underwriters' Laboratories of Canada, Toronto.

Mr. Walker has been associated with the finance and loan business in various executive capacities during the past 20 years.

Under the approvals program, all gas appliances and equipment installed in Ontario and British Columbia will be obliged to carry the seal of approval of The Canadian Gas Association. The provinces of Alberta, Sas-

katchewan and Manitoba will recognize the seal of approval and permit the sale and installation of appliances and equipment carrying this seal.

Approvals testing will be carried out in the laboratories of the Ontario Research Foundation, Toronto, the British Columbia Research Council, Vancouver, and the American Gas Association Laboratories in Cleveland and Los Angeles.

The program began early in November.

Brailey succeeds Maloney as personnel director at East Ohio Gas

LESTER G. BRAILEY has been named personnel director of The East Ohio Gas Co., Cleveland.

Mr. Brailey, who was assistant personnel director, succeeds Daniel E. Maloney who has retired after 39 years with the company.

A veteran in personnel work, Mr. Brailey

joined East Ohio in 1952 after several positions in the field of student personnel. Before coming to Cleveland, he served as assistant dean of men at the University of Pittsburgh. Earlier, he was assistant dean of men at Ohio State University and dean of men at Marshall College, Huntington, West Virginia.

He received his bachelor and master of science degrees at Ohio State and his doctorate of education from Pittsburgh.

Mr. Maloney was active in the American Gas Association before his retirement, and Mr. Brailey is now vice-chairman of the A. G. A. Employee Relations Committee.

Savage joins Built-In Age as executive assistant to president

FRANK SAVAGE, former sales manager of the eastern division of Magic Chef, Inc., has been named executive assistant to the president of Built-In Age, Inc. This Newark, N. J., firm sponsors the Architects Display Building, soon to open on Route 22 off the Garden State Parkway in Mountainside, N. J.,

and plans similar structures in Chicago and Dallas. The display buildings will offer to the home-building and home-owning public for inspection a complete line of appliances, materials, equipment, and home furnishings, under one roof.

Mr. Savage's new post will include over-all

supervision in an executive capacity. He has served a total of 18 years with Magic Chef, as factory sales representative and as division sales manager.

Sales were increased by more than 500 per cent in the South Jersey territory during his tenure.

Names in the news—a roundup of promotions and appointments

MANUFACTURERS

S. J. Grimm, former Servel regional manager at Kansas City, has been promoted to the new position of manager of builder sales, with headquarters at Evansville, Indiana. His duties will include the development of gas refrigerator sales to builders.

Appointment of A. C. Hansen, a 10-year employee at Robertshaw-Fulton Controls Co., as the company's national service director, has been announced. Mr. Hansen will head the newly formed service organization which will provide local field service throughout the United States to appliance manufacturers using Robertshaw-Fulton controls. He will continue as head of inspection and quality control at the company's Grayson controls division at Long Beach, California.

New executive assistant to the vice-president in charge of sales at Walworth Company is Howard Reid, former director of advertising and sales promotion at American Machine & Foundry Company. He will coordinate advertising, market research, sales training, sales promotion, and public relations for Walworth.

Mueller Climatrol announces that its newly created position of assistant to the field sales manager will be filled by Lee A. Miles. Mr. Miles joined the firm nine years ago as cooling application engineer, and later became a sales engineer.

B. G. Bowden has been appointed director of styling and industrial design for the John Wood Company. He will supervise the designing staff of the company's engineering and research division.

UTILITIES

Lone Star Gas Company reports the appointment of Neal Stephenson as manager of customer service in its Dallas division of distribution, and Robert Peterson Jr. as publicity representative in its public information department. Mr. Stephenson was formerly sectional supervisor in charge of telephone service for the Dallas division. His new responsibilities include customer applications, cashiers, customer telephone service, accounts receivable and customer history record sections.

New medical director of Consolidated Natural Gas Company is Dr. Albert J. Blair.

A seven-year employee at New York State Natural Gas Corp., Albert T. Hemp Jr. has been appointed head of gas measurement accounting for the company.

Sales potential

(Continued from page 6)

represent almost half the potential.

Half of the nation's families may own, or have convenient access to, automatic clothes dryers by the end of 1974, as the convenience and value of this appliance becomes more generally recognized. Gas may capture between one-third and two-fifths of this market, given conditions of optimum promotion and development.

Although the automatic dryer is a comparatively new appliance, a replacement market has already appeared. By the latter half of the 1960 decade, the replacement market will assume major proportions.

No estimates of gas refrigerator potentials have been developed, because of the existence of only one manufacturer. In spite of periodic sales difficulties, most market surveys reveal that a loyal and enthusiastic minority of the market is happy with gas refrigeration and has no intention of changing.

It becomes increasingly apparent that a high level of sales is largely a chain reaction. The attainment of high potential sales in the present and near future is a strong pre-condition for even higher future sales.

The importance of retaining consumer loyalty cannot be too strongly emphasized. Copy testing studies have shown that one of the major functions of advertising is not only to stimulate purchases, but to reinforce the convictions of people who have already purchased—to reassure them that they have made the right choice.

Many peripheral promotion efforts serve this purpose. Placing gas ranges in movies and television shows as props is an example. The people who will notice that the range is of a certain make, or that it uses gas, are in large part those who have recently made a decision about a range. Therefore, institutional and product promotion even for products with high acceptance acts as a safeguard to future sales by reinforcing consumer satisfaction.

Maintenance responsibility

Dissatisfaction with the operating characteristics of existing equipment, on the other hand, may shed an unfavorable aura upon all other equipment using that fuel. A question that might merit careful examination is that of the responsibility for the maintenance of present appliances. Does it fall upon the dealer, the manufacturer, or the utility, or can all three cooperate in retaining consumer good will since all three require consumer satisfaction to ensure their future profitability? In view of the major importance of the replacement market in sales of all gas appliances, both currently and in the future, the maintenance of consumer loyalty becomes increasingly significant.

The important part that alert market research can play in helping manufacturers and utilities to keep their customers satisfied should be recognized. Who are the immediate sales prospects, the people who want to buy new appliances and should be replacing old ones, where are they located, and how many such families are there? Do present advertising themes recognize and appeal to people's needs and desires? What features of gas appliances do consumers like, and how can promotion acquaint more people with them? What features

are people dissatisfied with that can be improved on the drawing board? By what promotion methods may current unjustified dissatisfaction with certain features be overcome?

These are all questions that must be answered, and market research is one of the major tools that can provide answers.

It should be recognized that increased promotion effort, better marketing techniques, expanded market research activities, improved product design will increase consumer loyalty and win new users only *relatively*. Competitive fuels are exerting similar efforts, and will undoubtedly expand their efforts in the future. To obtain relative gains in the proportions of given appliances which are gas-fired, our efforts must exceed theirs in effectiveness, either by the more intelligent use of limited funds (which makes effective market research an absolute essential at both the national and local level), or, as seems less likely in view of relative availability of funds, by the expenditure of more money.

If greater effectiveness in promotion and advertising is to be maintained, even after initial achievement, frequent objective evaluation by impartial groups is vital to introduce changing concepts which will be responsive to consumer desires and attitudes.

Based on continued high levels

Throughout this memorandum, the potentials have been predicated upon continuation of high levels of business activity on the average (the possibility of brief and minor recessions are not inconsistent with this assumption). If there should be any major business contraction, an eventuality which most economists regard as unlikely in view of our improved methods of stimulating and restraining economic activity, it is probable that gas ranges will suffer less than electric.

Although total appliance sales would decline materially under such circumstances, the proportion of sales represented by gas units would increase as gas is a more economical fuel for cooking in virtually all areas; this differential, currently of little consequence since a few dollars per month seems negligible during prosperity, may assume greater significance if disposable income becomes less plentiful. The same reasoning will be applicable to water heating in most sections of the nation.

The fundamental appeal of the built-in feature has been amply demonstrated by popularity of built-in bookcases, television sets, ranges. Complete built-in kitchens and utility rooms are the next logical step. Pre-designed, pre-built arrangements of cabinets, sink, dishwasher, range, refrigerator, and optional water heater can be offered to builders. An additional laundry modular unit to be built in might consist of washer, dryer, laundry hamper, storage cabinet, and perhaps water heater.

Appliance makers, cabinet manufacturers, and builders and contractors will have to cooperate closely to plan and implement this idea. It will be necessary to determine the most efficient standardization of size and arrangement of the elements of the modules. In particular, the dimensions of the units must become nearly standardized so that each of the functional parts of the built-in unit may be removed and replaced with ease when necessary.

The International Housebuilding Exposition in New York's new Coliseum featured large displays of just such pre-built

unit kitchens by major appliance and cabinet manufacturers. The idea can be, and probably will be, improved upon and carried still further. Eventually, it may develop that the only free-standing equipment in the kitchen of the future will be the housewife.

All of these estimated potentials have been described in terms of the separate and individual appliances we are familiar with now. It is entirely possible however, that the basic heat-utilizing functions may be organized on a completely different basis in the home of the future. Unification of utilities may be achieved through a system that can supply all heat requirements from a single heat source.

From a central gas-fired boiler-type arrangement, controlled by a series of thermostats and valves, a super-heated liquid may flow through the house. It would run through pipes in baseboards and floors to provide radiant heating, around a storage tank to heat water, through coils of tubing set in a counter top to cook food, through tubes in and around cup-

boards built into walls to act as ovens, driers, incinerators.

Another possible residential use of gas is the gas-fired heat pump, which is technically possible even now. For cooling systems, it has not yet been made as efficient as its electric counterpart, but for the heating function it is already unsurpassed. The gas-fired heat pump can be set for a wide range of design temperature for heating, and is not only more economical to run than electric, but, more important, takes up far less room. Furthermore, given an efficient method of heat storage, the excess heat generated may be recovered and coordinated with a water heating system as well.

The possible market for these new concepts, which will gradually outmode existing appliances as we know them, staggers the imagination. It presents a great challenge to the design engineers and research facilities of the gas industry and appliance manufacturers, as well as pointing out the vital need for increased research budgets, to ensure that gas achieves a preponderant position in the dream homes of the future.

Banquet hails

(Continued from page 15)

Canadian boundary early in November to service Vancouver, British Columbia. Gas from U. S. sources will be used in Vancouver until Westcoast Transmission Company, Ltd., completes a line from the Peace River fields of Northern British Columbia and Alberta.

The Canadian pipeline is about half completed and it is expected it will begin serving Vancouver and connect with the Pacific Northwest line at the border next

fall. Pacific Northwest Pipeline Corporation's line is prepared to deliver up to 343 million cubic feet. When the West-coast line is completed, Pacific will receive over 300 million cubic feet of Canadian gas at the boundary to supplement its supply for the Northwest.

Mr. Zachry said that arrival of natural gas in the Northwest helps entrench natural gas as one of the largest and probably fastest-growing industries in the nation.

"The gas industry today has assets of over \$16 billion, as contrasted with less

than \$6 billion just 10 years ago," he stated. "This investment is continuing to increase at the rate of \$1 billion a year."

He pointed out that "three of every four American families now use and depend upon gas in their homes. Last year the homes, schools, shops and factories of our country consumed 10 trillion cubic feet of natural gas, transmitted through approximately one-half million miles of pipeline.

"The gas industry employs 200,000 men and women whose annual payroll approaches \$1 billion."

Meter standards

(Continued from page 30)

the average house-heating customer.

Today there are in use millions of 150-210 cfh capacity meters metering small domestic loads. This applies to suburban as well as metropolitan areas. Meter superintendents as well as top management are vitally interested in keeping our meter maintenance costs at a minimum.

True, many of our repair shops, both old and new, are taking full advantage of automation, but nevertheless, with overhead, fringe benefits and hourly pay rates on the increase, it is necessary for us to explore other fields for savings. A meter that can be adjusted externally with the use of a screw driver or an adjusting tool is the ideal meter for economical maintenance, thereby eliminating operations to prepare the meter for adjusting.

Time and experience have proven that

synthetic diaphragms do not require any attention. Performance records of synthetic diaphragm meters which were presented at the last two Distribution Conferences disclosed that diaphragms made of synthetic rubber were far superior to leather diaphragms in their performance. In the future, our main concern should be adjusting, not repairing, meters.

Let us take a look at our soldered tin meter after it has had a complete repair. We have a meter of 150 cfh capacity that may be anywhere from 14 to 35 years old. This meter is not new and the future life expectancy may be from seven to 14 more years. This meter may be installed to meter a domestic load consisting of a range alone or a range and hot water heater. We have spent a certain amount of money to repair this meter and this amount is far in excess of the cost of a new meter which has a capacity more in line with the load to be metered.

By retiring instead of repairing these

meters which have given us many years of useful service and replacing them with a new low-cost simplified meter of a capacity correct for the load to be metered, we will keep our maintenance cost to a minimum.

The program of standardization is of enormous magnitude which cannot be successfully achieved unless all of us participate and recognize Standard Meter Purchase Specifications when meters are purchased. Mass production brought about by standardization is the keystone in success of a project of this kind.

Previously I mentioned complacency, but I honestly feel that this is becoming something of the past. We of the Operating Section are obligated to look ahead continually to more economical ways of operating. By taking full advantage of standardization and with the assistance of top management, I know that we, the operating personnel, can help keep our operating costs from pyramiding.

Servel appoints Eskew and Davidson to air conditioning posts

ROBERT K. ESKEW, former chief engineer for Servel air conditioning products, was named sales manager of the air conditioning division, and John N. Davidson, former manager of Servel's defense division, succeeds Mr. Eskew as chief engineer.

Mr. Eskew is a veteran of 23 years' experience in sales, field service, manufacturing and engineering at Servel, and was one of the first members of the company's air conditioning organization.

Starting at Servel in 1927 as a tester, Mr. Eskew has been with the company except for

a short period of time ever since. He has served Servel as field service representative for New York and New England, commercial sales manager for the East Coast, supervisor of a pilot plant which built equipment for the Office of Scientific Research and Development in World War II, air conditioning zone supervisor for the New York area, administrative engineer for air conditioning, product director, and more recently chief engineer for air conditioning.

Mr. Davidson joined the company 26 years ago, and was first employed in Servel's New

York laboratories before coming to Evansville. He aided in the development of Servel's first air-cooled gas refrigerator. During World War II, Mr. Davidson was assistant superintendent of P-47 Thunderbolt wing production at Servel. At the close of the war, he returned to engineering, and was put in charge of engineering activities on air conditioning. In 1952, Mr. Davidson was placed in charge of F-84 Thunderjet wing production and other defense work. He continued as manager of the defense division until last September, when he became a member of the staff of Servel's president.

High input heaters

(Continued from page 9)

heating process. Three contemporary burners were selected to provide a wide variation in flame pattern and a variety of port sizes and distributions.

Special instrumentation was designed and calibrated by the Laboratories for obtaining accurate metal surface temperature during the course of verifying the heat transfer process and for investigating the interrelationship of the many water heater design variables.

In developing a comprehensive picture of the water heating process there is discussion of (1) the effect of burner design and placement, (2) temperature distributions, (3) effect of variations in the flow patterns of secondary air and flue products on water heater performance and (4) heat transfer analysis of the heating cycle in a contemporary water heater.

Through this research, it was demonstrated that much higher heat input rates

can be satisfactorily applied to storage type water heaters than is common in contemporary models. For example, a heat input rate of 60,000 Btu per hour was successfully applied to an experimental 30-gallon storage water heater with a conventional drilled port burner. This experimental 30-gallon heater, designed with a combination internal-external flueway, matches the recovery capacity of most contemporary 60-gallon models with only 12.9 per cent of the heat being transferred through the tank bottom. Furthermore, temperatures of heat transfer surfaces were no more than those of conventional units, but were generally more uniform over a greater area.

Additional studies were performed to determine possibilities of decreasing service difficulties and construction costs without attempting to improve greatly the performance of contemporary units. Potential reduction of service difficulties with simplicity of design were made feasible by the use of impingement type

target burners. Several experimental types of target burners were successfully applied.

Although these burners are inherently more noisy than drilled port types, this disadvantage was overcome by incorporation of flame stabilizing devices in the target design and proper positioning of the orifice. Water heater performance with these burners compared favorably with performance of contemporary units.

Experiments were also conducted with a 100 per cent primary aerated grid-type burner mounted in the internal flueway of one unit to eliminate bottom heating. This particular arrangement, while overcoming possible "bumping" difficulties, resulted in water temperature "stacking" in the tank, a condition which may be minimized by using a convex tank bottom.

Copies of Research Bulletin No. 71, "The Application of Heat to Domestic Gas Storage Water Heaters," are available at \$2.00 each from the A. G. A. Laboratories or Headquarters.

Kaapcke joins A.G.A.

THE American Gas Association has announced the addition of Bernard Kaapcke, last with the Henry J. Kaiser Company as an editor in Oakland, Calif., to the staff of its Public Information Bureau. Mr. Kaapcke, a graduate of the University of Washington, previously was an editor and writer for the United Press, the U. S. Navy Department, and trade publications in California.

Promote Fortunato

VINCENT S. FORTUNATO has been appointed assistant manager of the commercial sales department at The Peoples Gas Light and Coke Co., Chicago. He will work under James J. Condon, manager of the department. Mr. Fortunato has been with the utility for 22 years, and was advanced from the position of supervisor. A member of the American Gas Association, Mr. Fortunato has been active on committees of the Industrial and Commercial Gas Section, and is at present serving on the Section's Committee on Displays at National Exhibitions.

Statement Required by the Act of August 24, 1912, as Amended by the Acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) Showing the Ownership, Management and Circulation of

The American Gas Association Monthly published monthly, except July and August, bi-monthly then; at Brattleboro, Vermont for October 1, 1956.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, American Gas Association, Inc., 420 Lexington Ave., New York 17, N. Y.; Editor, Vaughan O'Brien, 420 Lexington Ave., New York 17, N. Y.; Managing editor, None; Business manager, None.

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3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

VAUGHAN O'BRIEN, Editor.

Sworn to and subscribed before me this 24th day of September, 1956.

LAWRENCE P. BROWN
NOTARY PUBLIC, STATE OF NEW YORK
No. 41-0453000
Qualified in Queens County
Term Expires March 30, 1957

Stockholders

(Continued from page 11)

Advance notice of plans for the meeting was given to the Chicago metropolitan and local press. Very satisfactory coverage resulted. A picture story of the meeting was run in the employee magazine, "Flame." A copy was sent to all stockholders who attended, with a letter from the president thanking them for their interest and inviting suggestions as to future meetings. Although no suggestions resulted, several stockholders wrote letters of appreciation.

In addition, all stockholders received, with their August 1 dividend checks, the usual quarterly report including a brief report of the election of directors, the full text of President Chandler's address and a summary of the principal items of general interest brought up in the question period which followed the formal meeting.

Northern Illinois Gas Company considers that this first attempt at attracting greater individual stockholder participation in its affairs was successful and is planning to continue its efforts along these lines.

Equipment records

(Continued from page 28)

poses, preparation of insurance and personal property tax reports, physical verification or cycle inventory purposes but also for average service life studies and for supplying information to the operating departments and divisions of our company for budget purposes and property record forecasting. In addition to being able to supply information not previously available in our former perpetual property record, regular currently

required statements and reports are being prepared at a considerable savings in time and cost to the company.

Although the practice of using punched cards as a permanent record for general equipment is well established in the utility field, we believe the procedure used in making the conversion from a 5 x 8-in. typed card to a punched card system by the electro-photo process known as Xerography is unique and one that might well be adopted to other similar and related problems.

Leroux promoted

THE QUEBEC Hydro-Electric Commission announces the appointment of Jean-Jacques Leroux as assistant chief engineer of its shops and transportation department. Joining Hydro-Quebec ranks in 1948 as an engineer in its gas department, Mr. Leroux became assistant to the superintendent of the construction and maintenance division in 1951 and was named design engineer two years later.

He is a member of the Corporation of the Professional Engineers of the Province of Quebec and of the Graduate Society of Montreal Polytechnical, and sits on committees of both the American Gas Association and the Canadian Gas Association.

Miller retires

DR. ROLLA W. MILLER, research director of The Peoples Natural Gas Co., Pittsburgh, Pa., since 1933, retired on Oct. 1. Dr. Miller was closely associated with Mellon Institute as a senior Fellow, and was director of the Utility Survey Commission of Pittsburgh. This commission has a principal function of investigating and reducing gas leakage. It is composed of personnel from Peoples Natural Gas, Equitable Gas Co., Manufacturers Light & Heat Co., and Duquesne Light Company. Dr. Miller earned his Ph.D. at the University of Pittsburgh. From 1921-33, he was research chemist for Hope Natural Gas Company and other Consolidated Natural Gas Company subsidiaries. He is a member of the American Gas Association.

Lawrence vice-president

CARL R. LAWRENCE has been elected vice-president of the Atlanta (Ga.) Gas Light Company. He has been the general superintendent of the Atlanta operating department of the company since 1946, and will continue to devote most of his time to that activity. He joined the company in 1936 as supervisor of the appliance laboratory and employee training. In 1943 he was made service supervisor. Before joining the utility, he served for a period of time as research engineer with the American Gas Association. He has remained active in the Association since then, and is now on the A. G. A. Committee for All-Year Gas Air Conditioning Equipment.

Columbia promotes two

TWO PROMOTIONS in the engineering and research department of the Columbia Gas System Service Corporation have been announced. Bernard J. Clarke has been named chief supervisory engineer with headquarters in New York and William C. Day has been named manager of the gas engineering department with headquarters in Columbus, Ohio. Both have been supervisory engineers. Mr. Clarke joined the service corporation in 1952, in Columbus as a chemical engineer. He was transferred to the New York office in 1954. Mr. Day joined the system in 1933 as a cadet engineer with The Ohio Fuel Gas Company. He was transferred to the service corporation in 1953, after serving in various engineering capacities with Ohio Fuel and Virginia Gas Transmission, Columbia subsidiaries.



1957

JANUARY

- 17-24 •National Housewares and Home Appliance Manufacturers Exhibit, Chicago, Ill.
- 20-24 •National Association of Home Builders, Chicago, Ill. (A. G. A. will exhibit)
- 24 •American Marketing Association, Seminar on Public Utilities Marketing, Dallas, Texas
- 25 •Pennsylvania Gas Association, Mid-Winter Sales Conference, Benjamin Franklin Hotel, Philadelphia, Pa.
- 28-29 •Industrial Heating Equipment Association, Washington, D. C.

FEBRUARY

- 3-5 •Public Utility Buyers' Group, National Association of Purchasing Agents, The Brown Hotel, Louisville, Ky.
- 4-6 •A. G. A. Home Service Workshop, King Edward Sheraton Hotel, Toronto, Ontario
- 4-8 •Western Winter Radio-Television and Appliance Market, Western Merchandise Mart, San Francisco, Calif.
- 25-28 •American Society of Heating and Air Conditioning Engineers, Chicago, Ill.

MARCH

- 11-15 •National Association of Corrosion Engineers, Kiel Auditorium, St. Louis, Mo.
- 21-22 •New England Gas Association, Annual Meeting, Hotel Statler, Boston, Mass.
- 25-27 •Mid-West Gas Association, Hotel Nicollet, Minneapolis, Minn.
- 25-27 •A. G. A. General Management Section, Annual Conference, Edgewater Gulf Hotel, Edgewater Park, Miss.
- 28-29 •Oklahoma Utilities Association, Annual Convention, Tulsa Hotel, Tulsa, Okla.

APRIL

- 8-10 •GAMA Annual Meeting, The Greenbrier, White Sulphur Springs, W. Va.
- 8-10 •National Conference of Electric and Gas Utility Accountants, Sheraton Park Hotel, Washington, D. C.
- 8-11 •A. G. A. Distribution, Motor Vehicles and Corrosion Conference, Rice Hotel, Houston, Texas.
- 16-18 •A. G. A. Sales Conference on Industrial and Commercial Gas, Jung Hotel, New Orleans, La.
- 25-26 •Indiana Gas Association, Annual Meeting, French Lick-Sheraton Hotel, French Lick, Ind.
- 29-May 1 •Southern Gas Association, New Orleans, La.

Personnel service

SERVICES OFFERED

Factory Representative or Heating Engineer—utility or appliance company. Twenty-five years' experience in all phases of gas industry including sales, distribution. 1853.

Chemical Engineer—14 years' experience including over five years in natural gas work on deliverability studies, natural gasoline plant design and start-up, transmission, conditioning, measurement, automatic control, underground gas storage, and preparation of the technical aspects of FPC cases. Desires opportunity to use training and experience in a position of growth potential. MS in chemical engineering, married, 36 years old. 1854.

Gas Engineer—Desires position in gas utility where 25 years' experience in engineering, operations and management will be of value. (45) References. 1855.

POSITIONS OPEN

Service Manager—take charge of warehouse and service, must be qualified to service gas and electric water heaters, gas heating equipment. Territory is New York, Brooklyn, Queens and Long Island. Excellent salary—vacation—hospitalization and insurance benefits—bonus—car allowance. 0826.

Heating Supervisor—gas heating service and installation supervisor. Prefer man under 45 with

utility experience. Natural gas company. Location: one hour from New York. 0827.

General Sales Manager—newly created position in large integrated gas utility. Maximum age, 40; minimum two years college; minimum ten years' sales experience, including five years' successful sales management and experience in home appliance field. Prefer family man with Southwestern background. Dallas headquarters with travel throughout four-state Southwestern territory. Starting salary \$12,000 per annum. Provide complete resumé. 0828.

Sales Engineer—Industrial gas combustion experience desired. Work will be varied with training in production, engineering, development and sales. Midwest company. Salary open, with liberal insurance and pension benefits. 0829.

Young Engineers—Philadelphia utility with divisions in Eastern Pennsylvania can use four recent engineering graduates. Will be given groundwork in all departments of company before regular assignment. In reply please state age, education, experience—if any. 0830.

Engineers—Philadelphia utility can use two engineers experienced in gas distribution. Please state age, education, experience and other background information in replying. 0831.

Home Service Supervisor—Woman to take charge of new home service department opening in city 40 miles from Milwaukee, Wisconsin. Progressive community, 10,000 population, lake area. Degree in home economics required; experience in home service or allied field necessary. Give full details as to education, experi-

ence, marital status and salary expected in first letter. 0832.

Gas Service Engineer—fast growing progressive midwest gas utility with 14,000 customers is seeking a graduate engineer with particular experience in customer service to take immediate position as assistant service supervisor leading to position as supervisor within three years and possible higher executive positions. Must have executive ability to supervise and train service men and other personnel in customer relations. Age bracket under 40 years. Give complete background, experience and references. Replies will be held confidential. 0833.

Economist-writer—for economic consulting firm in natural gas—public utility field, in Washington, D. C. Degree in economics with courses in public utilities preferred. Legal background helpful. Salary open. Replies held in confidence. Submit resumé with salary requirement. 0834.

Gas Rate Engineer—Current vacancy in Lansing, Mich., as Assistant Chief, the Gas Section of the Public Utilities Division of the Michigan Public Service Commission. Degree in engineering required, preferably in mechanical or chemical—and professional experience with a public gas utility as a government agency regulating such service. Salary range \$6,600 to \$9,750 per year depending on qualifications. Submit complete resumé and desired salary to Michigan State Civil Service Commission, Recruitment and Placement, Lansing 13, Mich. 0835.

General Management

(Continued from page 19)

the launching of the Claims Agents Subcommittee of the Insurance Committee. Formed of a small nucleus of interested claims agents in mid-1956, this subcommittee starts its first full year of opera-

tion with membership now representing all regions of the country from coast to coast, including Canada.

Since its formation, in 1952, to relieve the Board of Directors of an unwieldy load of supervisory responsibility, the General Management Section has sought every opportunity to fulfill its

responsibility and improve its supervision. Continuing its growth and development in order to meet the needs of the Gas Industry, the Section embarks on the 1957 Association Year confident of its ability to continue to meet the challenging problems of management in an era of change and expansion.

Single port burners

(Continued from page 21)

rate and primary aeration were then measured.

By repeating this procedure over a span of input rates using various gases a family of limit curves was obtained for each flame characteristic of each burner, and a zone of acceptable performance was defined by the various flame limit curves. Effects of the various burner design factors on these acceptable performance zones were then correlated.

Investigation of primary air injection characteristics consisted of determining the normal injection curve for each burner. This curve represents the primary air injected with a given gas pressure and with a wide open air shutter for any given input rate within a range of rates. The same type of curve was also obtained with various sections of the burner detached from the mixer tube.

The procedure for determining the limiting conditions for producing carbon in the flue products consisted of, first, reducing the flue outlet area of an appropriately sized combustion chamber and, second, decreasing the primary aeration, with a given input rate, until carbon was detected. Also a brief study was conducted to determine the effects of this type of burner on the flame characteristics when an interchange to a 1,400 Btu butane-air mixture was used after the burner was first adjusted to operate with natural gas.

During the course of this investigation, it was necessary to devise a method for ascertaining the presence of carbon in flue products. A small instrument was designed and constructed on the thermal precipitation principle to deposit carbon from samples of combustion products. The apparatus consisted of a horizontal heated wire, 0.01 inch in diameter, placed midway between two cold micro-

scope cover glasses, which were 0.016 inch apart, and mounted with their planes vertical and parallel. Provisions were made to introduce the sample gas between the two glass plates. Gas flowed at a controlled low rate from one end of the plate to the other, and any carbon particles present in the sample deposited on the plates in the vicinity of the wire.

In addition to investigating the performance characteristic curves of single port burners, other factors such as flame target design, burner temperature and variations in types of gas likewise were included in the study.

A. G. A. Laboratories' Research Bulletin No. 72, "A Study of Single Port Gas Burners," was authored by Leonard A. Nead and E. J. Weber of the A. G. A. Laboratories' research staff. Copies may be obtained from the A. G. A. Laboratories, 1032 East 62nd Street, Cleveland 3, Ohio, or from the Association's Headquarters, at \$2.00 each.

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